

THE EFFECTS OF ARMY AND AIR FORCE INSTITUTIONAL THEORIES  
OF VICTORY ON OPERATION DESERT STORM

BY

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## **APPROVAL**

The undersigned certify that this thesis meets master's-level standards of research, argumentation, and expression.

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## **DISCLAIMER**

The conclusions and opinions expressed in this document are those of the author. They do not reflect the official position of the US Government, Department of Defense, the United States Air Force, or Air University.



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## ABSTRACT

War is inherently a joint undertaking. The functional forms of warfare are constructed by the military services, each with a distinctive theory of victory. In the blending of these dissimilar modes of warfare, the planning and conduct of warfare becomes shaped by inputs from these theories of victory. The purpose of this thesis is to aid leaders, strategists, and practitioners in avoiding the resultant friction when these theories of victory diverge, which if not constrained can impair the prudent joint planning and conduct of war. The research question for this thesis is; How did the interaction between institutional theories of victory of the U.S. Air Force and the U.S. Army manifest itself in military-strategic choice before and during Operation Desert Storm?

To answer this question, this thesis parses the motivations for *what* and *how* the military services do what they do. Each military service has a theory of victory. Each theory of victory identifies, describes, and estimates the relative priorities of the service's critical attributes and tasks of warfare. If the logic from each institutional pillar tells the military service *how* and *what* it does, the theory of victory explains *why* it does these things.

The U.S. Air Force and U.S. Army displayed divergent theories of victory in Operation Desert Storm's planning and conduct. This thesis demonstrates these theories of victory influenced the military-strategic choices of decision makers by presenting divergent approaches to victory that the combatant commander was ultimately able to synthesize into a coherent theater campaign plan that exploited the strengths and minimized the weaknesses of both. The effects of such a divergence challenges the idea that strategic culture dominates the theory of victory of military institutions and finds that norms, with their logic of appropriateness are probably more compelling. The frameworks used in this thesis provide significant fidelity into the motivations of U.S. Air Force and U.S. Army. Finally, Desert Storm demonstrates not only the consistency of the Air Force and Army theories of victory within that historical period, but also that manifestations of theories of victory affected military-strategic choice in ways that allowed them to be artfully blended.

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## Chapter 1

### Introduction

*Why does the soldier think like a soldier, the sailor like a sailor, and the airman like neither of these but like an airman? Let there be no delusion. Even though they all serve the same common purpose and do so in all the honesty and sincerity of able and dedicated men, they do not think alike.*

*- J.C. Wylie*

Since at least the second millennium BC, the history of war has consistently demonstrated the utility of combined arms, which have evolved into a concept of joint operations.<sup>1</sup> The institutional mentality conducive to the effective conduct of joint operations is today known as jointness. In its essence, jointness is the functional blending of different forms of warfare. While such blending is frequently necessary, it is not easy. Carl von Clausewitz captured this complexity in his *On War* chapter titled, “Relationship between the Branches of the Service.” He noted that the combination of arms “leads to a more perfect use of the forces.”<sup>2</sup> Despite this benefit, he lamented the lack of any “fundamental and compelling basis” for determining “an optimum proportion between the arms” of a force.<sup>3</sup> Even the great military philosopher acknowledged the need for combined arms, which can be logically extended to joint arms, yet was unable to provide any prescription for what their composition should be.

The nature of war is complex, in part, because at its core it relies upon human judgment and interaction to construct and then test the proper combination of arms in battle. That interaction draws upon both cooperation among friendly forces and competition with a calculating

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<sup>1</sup> Roger Beaumont, *Joint Military Operations: A Short History* (Westport, Conn: Greenwood Press, 1993), 3.

<sup>2</sup> Carl von Clausewitz, *On War*, trans. and ed. Michael Howard and Peter Paret (Princeton, N.J.: Princeton University Press, 1989), 285.

<sup>3</sup> Clausewitz, *On War*, 287.

adversary. The interaction is made more complex when the means of cooperation and competition are constantly fluctuating within the nexus of doctrine, tactics, organization, and technology, which together constitute important aspects of the character of war in a particular era or setting.<sup>4</sup> Within this constantly changing character of war exist sharp disagreements among joint partners as to how best to “put your opponent on the horns of a dilemma.”<sup>5</sup> The tension created by the requirement for functional blending appears to be caused by differing attitudes toward the proper fusion of tasks and missions to achieve success in warfare.<sup>6</sup>

Since Clausewitz’s time, the challenge has evolved from the combination of fighting styles among continental branches to the integration of joint services into effective warfighting instruments. Of this phenomenon, Colin Gray has observed that while the “tactical ‘grammar’ of warfare has always tended to reward agile, and especially innovative, synergy... there is an inescapable dilemma lurking in the facts that warfare is joint but geography is not.”<sup>7</sup> However important differences in geography are to the modes of joint warfighting, this tension is not limited to the operating mediums of the services alone. A more holistic view of the tension of joint warfighting also includes institutional perspectives on warfare. Jonathan House weighs in on the tension of joint operations noting they have shifted “from coordinating

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<sup>4</sup> Williamson Murray and MacGregor Knox, “Thinking About Revolutions in Warfare,” in *The Dynamics of Military Revolution, 1300-2050*, ed. MacGregor Knox and Williamson Murray (New York, N.Y.: Cambridge University Press, 2001), 12.

<sup>5</sup> B. H. Liddell Hart, *Strategy*, 2nd Rev. ed. 1967 (Reprint, New York: Penguin, 1991), 335.

<sup>6</sup> Beaumont, *Joint Military Operations*, 189.

<sup>7</sup> Colin S. Gray, *Airpower for Strategic Effect* (Maxwell Air Force Base, Ala.: Air University Press, Air Force Research Institute, 2012), 61.

among those [individual forces of] arms, to finally combining their action to maximize the effect of all components of an armed force.”<sup>8</sup>

It is logical, then, to deduce that the performance of a joint force is a product of various service contributions. Joint operations consist of blending various military services’ institutional perspectives, priorities, and methods of command and control.<sup>9</sup> Given that the trend of warfare is moving toward greater coordination, synchronization, and integration, it is useful to contemplate how disparate views of warfare influence the outcome of warfare during both planning and conduct of operations. More importantly, beyond *how* the services think differently, one must also understand *why they think differently*. However, the necessity for understanding how and why the services think differently from one another is quite different from prescribing standardization to service processes. As J.C. Wylie observed,

Asking why [joint partners] do not agree is quite a different matter from asserting that they should agree. On the contrary, these differences of judgment, these clashes of ideas, these almost constant pullings and haulings among the services, are the greatest source of military strength that the nation has.... Nothing would be more dangerous to our nation than the comfortable and placid acceptance of a single idea, a single and exclusively dominant military pattern of thought.<sup>10</sup>

In the joint blending of functional forms of warfare, the ideals, ideas, and behavior of military institutions shape the outcome. Toward that end, military institutions have particular imperatives and

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<sup>8</sup> Jonathan M. House, *Combined Arms Warfare in the Twentieth Century*, Modern War Studies (Lawrence, KS: University Press of Kansas, 2001), 3.

<sup>9</sup> Dennis M. Drew and Donald M. Snow, *Making Strategy: An Introduction to National Security Processes and Problems* (Maxwell Air Force Base, AL: Air University Press, 1988), 97–101.

<sup>10</sup> J.C. Wylie, *Military Strategy: A General Theory of Power Control*, Classics of Sea Power (Annapolis, MD: Naval Institute Press, 2014), 150; J.C. Wylie, “Why a Sailor Thinks Like a Sailor,” *Proceedings* 83, no. 8 (August 1957): 811.

preferences that form an organizational intellectual construct that can be understood as constituting a theory of victory.

A theory of victory represents the constituent principles that stipulate modes of thought and translate action into victory.<sup>11</sup> In order to develop the necessary amount of military effectiveness from a joint force, these service-specific theories of victory must be blended in specific contexts of joint warfare. This thesis investigates the cause-and-effect relationship between service theories of victory and military effectiveness in the planning and conduct of joint operations. A joint operation is meant here as the conduct of warfare with more than one armed service. This is the practical resolution of the ideal where “Jointness should mean that the armed forces contribute as each is best able to a common military, strategic, and political endeavor.”<sup>12</sup>

Why is it useful to study theories of victory? Because, as Graham Allison and Philip Zelikow observe in *Essence of Decision*; “Few important issues fall exclusively within the domain of a single organization.” Thus, “government behavior relevant to any important problem reflects the independent output of several organizations, partially coordinated by government leaders.”<sup>13</sup> Borrowing from Allison and Zelikow’s observation, this thesis aims to explain the interaction of institutional theories of victory in Operation Desert Storm by considering how the imperatives and preferences of the U.S. Air Force and U.S. Army interacted and affected military effectiveness. In doing so, it seeks to determine not only *how*, but more importantly, *why* the Army and the Air Force as institutions see things differently. J.C. Wylie perhaps articulated this dynamic best when in *Military Strategy* he suggested that

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<sup>11</sup> William C. Martel, *Victory in War: Foundations of Modern Military Policy* (Cambridge ; New York: Cambridge University Press, 2006), 88.

<sup>12</sup> Colin S. Gray, *Modern Strategy* (New York: Oxford University Press, 1999), 240n46; Gray, *Airpower for Strategic Effect*, 71.

<sup>13</sup> Graham Allison and Philip Zelikow, *Essence of Decision: Explaining the Cuban Missile Crisis*, 2nd ed. (New York: Pearson, 1999), 143.



after the acknowledgment and understanding of our joint partner's theories of victory, one could determine "when and where and under what circumstances which basic patterns of thought can most profitably be put to practice."<sup>14</sup>

The research question of this thesis is thus, how did the interaction between institutional theories of victory of the U.S. Air Force and the U.S. Army manifest itself in military-strategic choice before and during Operation Desert Storm? Operation Desert Storm, which began on 17 January 1991 and ended on 28 February 1991, provides an illuminating case study of conflicting perspectives about the planning and conduct of joint operations. It particularly serves as a useful example of how the theories of victory of the U.S. Army and U.S. Air Force shaped the planning and execution of that war.

Because of the positive results of Desert Storm, many argued that harmony between the Army and the Air Force had contributed positively to the outcome.<sup>15</sup> Others, however, concluded jointness was actually stunted in that conflict.<sup>16</sup> According to these critiques, the success of Desert Storm was generated in spite of very distinct and disjointed campaigns of effort on the land and in the air, rather than being the result of an integrated joint campaign. "[The] Army-Air Force partnership

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<sup>14</sup> Wylie, *Military Strategy*, 48.

<sup>15</sup> "Joint Warfare of the US Armed Forces: 'Joint Warfare Is Team Warfare,'" Joint Publication (Washington D.C.: Joint Chiefs of Staff, November 11, 1991), 63-69, <http://www.dtic.mil/docs/citations/ADA366009>.

<sup>16</sup> David E. Johnson, *Learning Large Lessons: The Evolving Roles of Ground Power and Air Power in the Post-Cold War Era* (Santa Monica, CA: RAND Corporation, 2007), 31, 40-64; Michael R. Gordon and General Bernard E. Trainor, *The Generals' War: The Inside Story of the Conflict in the Gulf*, First ed (Boston: Back Bay Books, 1995), xiv, 203-4, 324-348, 447-454, 471-477, 494; Harold R. Winton, "An Ambivalent Partnership: US Army and Air Force Perspectives on Air-Ground Operations, 1973-90," in *The Paths Of Heaven: The Evolution Of Airpower Theory: The School Of Advanced Airpower Studies*, ed. Phillip S. Meilinger (Maxwell AFB, AL: Air University Press, 1997), 433; Robert Scales, *Certain Victory: The U.S. Army in the Gulf War* (Washington D.C.; Poole: Potomac Books Inc., 2006), 174-181, 315-316; Richard M. Swain, *"Lucky War": Third Army in Desert Storm* (CreateSpace Independent Publishing Platform, 2013), 181-190; Rick Atkinson, *Crusade: The Untold Story of the Persian Gulf War* (Boston: Houghton Mifflin, 1994), 151-152, 218-223, 338-340.



[in Desert Storm] was severely strained,” Harold Winton observes, “and the performance resembled neither a delicately balanced chamber session nor a finely turned symphony, but a concerto in which each performer believed he was playing the featured instrument.”<sup>17</sup> To the extent that this observation is accurate, the campaign offers rich insights for the examination of each institution’s imperatives and preferences and their influence on military effectiveness.

In sum, this thesis investigates the cause-and-effect relationships between service theories of victory and the planning and conduct of joint operations in Operation Desert Storm. Its ultimate purpose is to aid practitioners in the avoidance of the friction that occurs when theories of victory become sufficiently divergent to impair prudent joint planning and conduct of war.

The research question is based on the proposition that institutions have distinctive theories of victory and that military-strategic choice is influenced and limited by patterns of thought represented by those theories. It is also based upon the idea that inferences about institutional theories of victory can be discerned from military doctrine. According to Barry Posen, doctrine can be utilized to draw inferences about institutional theories of victory because it makes explicit *what* means shall be employed, and *how* those means should be employed. Furthermore, doctrine provides the form from which inferences can be drawn regarding proper function:

Military doctrine includes the preferred mode of a group of services, a single service, or a subservice for fighting wars. It reflects the judgments of professional military officers, and to a lesser but important extent civilian leaders, about what is and is not militarily possible and necessary.... Military doctrine, particularly the aspects that relate directly to

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<sup>17</sup> Harold R. Winton, “Partnership and Tension: The Army and Air Force Between Vietnam and Desert Shield,” *Parameters* 26 (Spring 1996): 100–119.

combat, is strongly reflected in the forces that are acquired by the military organization.<sup>18</sup>

Doctrine establishes the standard operating procedures within each military service; and partially, through a doctrinal lens, one can grasp some essential features and function of a service's theory of victory. While doctrine is often confused for doctrinaire approaches to warfare, this thesis takes a broader view. James Q. Wilson has suggested standard operating procedures are the essence rather than enemy of the organization.<sup>19</sup> Since doctrine is the codification of the essence of organizations and institutions, it is an important driver and vital element of each service's theory of victory.

The concise definition of a theory of victory offered earlier requires expansion. According to William Martel, "In the case of understanding victory, the purpose of a theory would be to guide or inform the behavior of scholars who study the relationship between the use of force and strategy, and of policymakers who make decisions in a political or military setting about whether to use force."<sup>20</sup> Martel suggests a theory of victory must do three things. First, it must identify the critical attributes and tasks of warfare. Second, it must describe the extent to which these attributes and tasks contribute to victory. Finally, the theory must estimate the relative influence or priority of these attributes and tasks on creating the conditions for victory.<sup>21</sup> Stated differently, a theory of victory is a military means-ends chain—it is a service's theory about how it can best contribute to national security. Ideally, the theory of victory includes an explanation of why it is expected to work, even if that explanation is largely implicit.

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<sup>18</sup> Barry Posen, *The Sources of Military Doctrine: France, Britain, and Germany Between the World Wars* (Ithaca, NY: Cornell University Press, 1984), 13–14.

<sup>19</sup> James Q. Wilson, *Bureaucracy: What Government Agencies Do and Why They Do It* (New York: Basic Books, 1989), 221.

<sup>20</sup> Martel, *Victory in War*, 89.

<sup>21</sup> Martel, *Victory in War*, 90.

The argument of this thesis moves from the general to the specific. Chapter 2 addresses the relationship between military institutions and their theories of victory. It relies on an organizational theory created by W. Richard Scott in *Institutions and Organizations: Ideas, Interests, and Identities*. This framework offers a cogent explanation for the imperatives and preferences of military institutions. Ultimately, the chapter highlights a sociological structure that relies upon a categorization and connection between regulatory requirements, normative beliefs, and cultural-cognitive self-perception that synthesize into a resultant “collective rationality,” forming an institutional theory of victory.<sup>22</sup>

The categorization of rules, norms, and culture is somewhat artificial, but it remains useful for examining the interrelatedness of institutional imperatives and preferences. The theory of victory is a synthesis of these categorical building blocks because, according to Scott “behavior is shaped not only by attention to rules and the operation of norms, but also by common definitions of the situation and shared strategy of action.”<sup>23</sup> The use of Scott’s framework helps explain both the *how* and *why* the resultant synthesis forms into a collective rationality that constitutes an institutional theory of victory using the framework provided by Martel above.

Chapter 3 seeks to create an argument for the collective rationality of the U.S. Air Force as it stood in 1990 just prior to the Iraqi invasion of Kuwait and the subsequent events that culminated in Operation Desert Storm. This chapter analyzes each of the disparate pillars of the Air Force to answer the distinct questions of *how* and *why* this institution does what it does to address both its imperatives and preferences. Chapter 4 will likewise address the collective rationality of the U.S. Army

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<sup>22</sup> W. Richard Scott, *Institutions and Organizations: Ideas, Interests, and Identities*, Fourth Edition (Los Angeles: SAGE Publications, Inc, 2013), 268–269.

<sup>23</sup> Scott, *Institutions and Organizations*, 47.

in the same period. Here, when laid side-by-side, not only can one compare and contrast the similarities and differences between the entirety of each institution's theory of victory, but can also appreciate the differences in depth, as they will become apparent within the rules, norms, and culture of the institution from the distinctive pillars.

Chapters 3 and 4 rely on a range of primary and secondary sources to provide the data for applying Scott's framework to the Air Force and Army in order to develop a synthesis meeting Martel's requirements for a theory of victory. Among other evidence, it examines the service doctrine available from the period before the Iraqi invasion. Ultimately this chapter will create a synthesis using the disparate pillars highlighted in applying Scott's institutional framework to the U.S. Air Force and U.S. Army, and form it into a resultant theory of victory using Martel's framework. This analysis creates inferences for application to the institutional framework and thus the theory of victory offered by each service component to the Commanding General of U.S. Central Command who served as the Joint Force Commander.

Chapter 5 applies the aforementioned synthesis between Scott's and Martel's frameworks to the period of planning and conduct between the Iraqi invasion of Kuwait on 2 August 1990 and the end of Operation Desert Storm on 28 February 1991. Chapter 5 synthesizes the application of the frameworks described in Chapter 2 with the evidence presented in Chapters 3 and 4. This synthesis answers the research question of how interaction between institutional theories of victory of the U.S. Army and the U.S. Air Force are manifested in military-strategic choices before and during Operation Desert Storm. It also highlights the inherent difficulties in translating disparate theories of victory into a coherent operation for joint action. For example, regardless of the domain-centric leanings of military theories of victory, Gray reminds us

“one must never forget that politics wage war,” not simply an air or ground campaign.<sup>24</sup>

One reason individual service theories of victory create so much consternation for commanders is because, by themselves, they lack completeness in the practical exercise of war. Another reason is the contingency of human decision making makes it impossible for any single-service theory of victory to bring about the complex sequences required for success in war.<sup>25</sup> Chapter 5 focuses on the actions taken during Desert Storm that reveal the expectations, reflexes, styles, and attitudes which demonstrate application of the Army and Air Force’s distinctive theories of victory.<sup>26</sup>

The concluding chapter of this thesis briefly reviews how the interrelated regulatory requirements, normative beliefs, and cultural-cognitive self-perception of the Air Force and Army theories of victory influenced the planning and conduct of Operation Desert Storm.

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<sup>24</sup> Gray, *Modern Strategy*, 204.

<sup>25</sup> Colin S. Gray, *The Strategy Bridge: Theory for Practice* (Oxford ; New York, NY: Oxford University Press, USA, 2011), 27.

<sup>26</sup> Beaumont, *Joint Military Operations*, 190.

## Chapter 2

### The Relationship of Military Institutions to Theories of Victory

*Organizations are assemblages of interacting human beings and they are the largest assemblages in our society that have anything resembling a central coordinative system...the high specificity of structure and coordination within organizations—as contrasted with the diffuse and variable relations among organizations and among unorganized individuals—marks off the individual organization as a sociological unit comparable in significance to the individual organism in biology.*

-James G. March & Herbert A. Simon

Barry Posen introduced his analysis of the French, British, and German armies with the argument that “Organization theory can be used to explain organizational behavior wherever we find large, functionally specialized bureaucracies.”<sup>1</sup> Posen, by implication, suggests most formal organizations, especially military organizations, are highly complex. However, Posen’s explanation for this complexity is incomplete. Military organizations are not complex simply because of their size or byzantine bureaucracy. Rather, military organizations are complex because of their particular coordinative and adaptive requirements.<sup>2</sup>

These coordinative and adaptive requirements are especially necessary in wartime.<sup>3</sup> The coordinative and adaptive requirements of military organizations are driven, not unlike those of other complex organizations, by the need to deal with uncertainty.<sup>4</sup> Nevertheless, some form of relatively simple modeling can explain an organization’s essential and important features. Such models allow analysts to answer a basic question: What determines *why* organizations act *how* they do? James

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<sup>1</sup> Posen, *The Sources of Military Doctrine*, 35.

<sup>2</sup> James D. Thompson, *Organizations in Action: Social Science Bases of Administrative Theory*, Fourth, Classics in Organization and Management (New Brunswick, NJ: Transaction Publishers, 2003), 74.

<sup>3</sup> Posen, *The Sources of Military Doctrine*, 46–47; Stephen Peter Rosen, *Winning the Next War: Innovation and the Modern Military* (Ithaca: Cornell University Press, 1994), 34–35.

<sup>4</sup> Thompson, *Organizations in Action*, 6.

Thompson responds to this question pithily, formal organizations “do some of the basic things they do because they must—or else!”<sup>5</sup> This chapter builds upon Thompson’s retort by answering the question: What is the relationship between a military institution and its theory of victory?

To answer this question, the chapter adapts W. Richard Scott’s framework from organization theory that categorizes connections among three important variables: regulatory requirements, normative beliefs, and cultural-cognitive self-perception. The following argument defines essential terms, describes how Scott’s framework applies to military institutions, and analyzes how his pillars of military institutions are synthesized into what, arguably, constitutes to a theory of victory.

### **Definition of Terms**

The terms organization and institution must be defined. An organization is a “system of consciously coordinated activities or forces of two or more persons.”<sup>6</sup> Organizations are groups of individuals that “develop processes for *searching* and *learning*, as well as *deciding*” actions in the face of uncertainty.<sup>7</sup> Thus, organizations are systems of activities that develop processes.

Institutions, however, rely upon values in addition to their organizational processes. Scott explains this differentiation as follows:

A system of action [is] said to be *institutionalized* to the extent that actors in an ongoing relation oriented their actions to a common set of normative standards and value patterns. As such a normative system becomes internalized.... In this sense, institutionalized action is motivated by moral rather than by instrumental concerns.... The actor [within the institution] conforms because of his or

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<sup>5</sup> Thompson, *Organizations in Action*, 1.

<sup>6</sup> Chester Barnard as quoted in Wilson, *Bureaucracy*, 24.

<sup>7</sup> Thompson, *Organizations in Action*, 9.



her belief in a value standard, not [just] out of expediency or self-interest.<sup>8</sup>

If organizations act complexly in the face of uncertainty, then the question of *how* they act is much more than the aggregate of calculative decisions. Moving beyond basic decisions and processes into the realm of values is precisely what differentiates organizations from institutions. Ultimately, Scott defines institutions as follows: “Institutions comprise regulative, normative, and cultural-cognitive elements that, together with associated activities and resources, provide stability and meaning to social life.”<sup>9</sup>

Peter Berger and Thomas Luckman delineate four important facets of the social construction of institutions. First, the collective rationality of institutions reflects not only a measure of expediency, but also their values, which are a reflection not only of the institutions themselves, but also the individuals who created and maintain them.<sup>10</sup> Second, institutions develop patterns and seek control over their environments. According to Berger and Luckman, “It is impossible to understand an institution adequately without an understanding of the historical process in which it was produced. Institutions also, by the very fact of their existence, control human conduct by setting up predefined patterns of conduct, which channel it in one direction as against the many other directions that would theoretically be possible.”<sup>11</sup>

Third, the collective rationality of institutions results from the application of motive to actions. Thus, behavior becomes predictable as an output of the rules placed upon the institution, as well as the norms

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<sup>8</sup> Scott, *Institutions and Organizations*, 16.

<sup>9</sup> Scott, *Institutions and Organizations*, 56.

<sup>10</sup> Peter L. Berger and Thomas Luckmann, *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*, First Anchor Books Edition, Anchor Books (Garden City, NY: Doubleday, 1967), 54.

<sup>11</sup> Berger and Luckmann, *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*, 54–55.



and culture developed within the institution. This social construction of collective rationality is iterated over time from “there he goes again” to “there *we* go again.”<sup>12</sup> Institutionalization allows for a broader form of anticipation regarding the “taken-for-granted routines” and crystallization of processes influenced by rules, norms, and culture.<sup>13</sup>

Finally, this collective rationality forms into what is then experienced and reified through social interactions as an objective reality. Ultimately, institutions are a product of social and organizational construction. Therefore, to understand military institutions and their theories of victory requires careful consideration.<sup>14</sup> This allows analysis to move beyond reduction of organizational structure and rules to include institutional norms and cultures.<sup>15</sup>

This study considers the U.S. Army and the U.S. Air Force to be institutions, rather than organizations. The U.S. Army and the U.S. Air Force are both formal organizations who exhibit normative standards for ideals, ideas, and behavior, and thus, fit the definition of institutions used in this thesis. Throughout this study, the terms institution and organization are used somewhat interchangeably to accommodate the broader strength of organization theory. Nevertheless, the term institution is preferred because it embraces a broader range of factors that explain how military institutions develop distinctive theories of victory.

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<sup>12</sup> Berger and Luckmann, *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*, 57.

<sup>13</sup> Berger and Luckmann, *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*, 57, 58, 62.

<sup>14</sup> Berger and Luckmann, *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*, 60–61, 64.

<sup>15</sup> Scott, *Institutions and Organizations*, 18.

### **Scott's Analytical Framework: The Three Pillars of Institutions**

Scott posits that rules (the regulative pillar), norms (the normative pillar), and culture (the cultural-cognitive pillar) provide a framework that forms an institution's vital elements. He further argues these pillars interact to create powerful social systems.<sup>16</sup> These sociological elements of institutions can be compared to the psychological elements that influence human behavior and decision-making.

Individual behavior is subject to internal and external rules and norms. Where rules are subject to judgments of consequence, norms are concerned with judgments of appropriateness. Norms, like rules, have external and internal differentiation. Our external context creates expectations for behavior in roles, routines, and habits, whereas our internalized and conscious ethics dictate appropriate behavior on a more personal basis. James Q. Wilson suggests culture "is to an organization what personality is to an individual. Like human culture generally, it is passed on from one generation to the next."<sup>17</sup> As a result, rules, norms, and culture interact in complex ways to influence institutional behavior.

Many analysts have attempted to isolate these three institutional factors from one another, or emphasize one to the exclusion of the others. This tendency must be resisted. As Clifford Geertz notes,

locking cultural analysis away from its proper object, the informal logic of actual life...Behavior must be attended to, and with some exactness, because it is through the flow of behavior—or more precisely, social action—that cultural forms find articulation...Whatever, or wherever, symbol systems 'in their own terms' may be, we gain empirical access to them by inspecting events, not by arranging abstracted entities into unified patterns.<sup>18</sup>

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<sup>16</sup> Scott, *Institutions and Organizations*, 59.

<sup>17</sup> Wilson, *Bureaucracy*, 91.

<sup>18</sup> As quoted in Scott, *Institutions and Organizations: Ideas, Interests, and Identities*, 57.

But before the analysis can further describe how these elements contribute “in an interdependent and mutually reinforcing way, to a powerful social framework,” it first must make clear of what each pillar consists, including the analytical elements common to each pillar.<sup>19</sup>

**Table 1. Scott's Three Pillars of Institutions**

<b>Principal Dimensions</b>	<b>Regulative Pillar</b>	<b>Normative Pillar</b>	<b>Cultural-Cognitive Pillar</b>
<b>Basis of Compliance</b>	Expedience	Social Obligation	Shared Understanding
<b>Basis of Order</b>	Regulative Rules	Binding Expectations	Constitutive Schema
<b>Mechanisms</b>	Coercive	Normative	Imitative
<b>Logic</b>	Consequences	Appropriateness	Tradition
<b>Indicators</b>	Rules Laws Sanction	Certification Accreditation Trust	Common Beliefs Tacit Knowledge Harmony
<b>Affect</b>	Fear Guilt/Innocence	Shame/Honor	Certainty/Confusion
<b>Basis of Legitimacy</b>	Legally Sanctioned	Morally Governed	Comprehensible Recognizable Culturally Supported

Source: Adapted from W. Richard Scott's Table 3.1, “Three Pillars of Institutions,” *Institutions and Organizations: Ideas, Interests, and Identities*, Fourth Edition (Los Angeles: SAGE Publications, Inc, 2013), 60.

Scott's framework is built upon three pillars (x-axis) and seven principal dimensions (y-axis) (see Table 1). The pillars of the framework “are the key elements that constitute or support institutions.”<sup>20</sup> Patricia Thornton, et al., describe each of Scott's pillars as follows:

[The] regulative pillar refers to rule setting, monitoring, and sanctioning activities such as those of the police and the courts, and more informally through folkways that are often associated with actors' [and organizational] pursuit of their rational interests. The normative pillar refers to values and norms that specify the moral, prescriptive, evaluative, and obligatory dimension of social life that are typically expressed in roles internalized by individuals [and

<sup>19</sup> Scott, *Institutions and Organizations*, 59.

<sup>20</sup> Patricia H. Thornton, William Ocasio, and Michael Lounsbury, *The Institutional Logics Perspective: A New Approach to Culture, Structure and Process*, First Edition (Oxford: Oxford University Press, 2012), 36.

organizations] in ways that may not appear to be rational. The [cultural-cognitive] pillar refers to the nature of reality and the constitution and interpretation of categories and frames through which identity and meaning are interpreted.<sup>21</sup>

Each dimension of Scott's framework represents the varied assumptions and arguments among organizational theorists and, thus, each forms a useful comparative element for the three pillars depicted in Table 1.

The first dimension is the basis of compliance in how each pillar contributes to institutional obedience, otherwise known as institutionalization. The second dimension is the basis of order for each pillar, and maintains each pillar within the institution, giving rise to the institutional anticipation of "taken-for-granted routines." Mechanisms, which make up the third dimension of Scott's framework, are the forcing function for each pillar. Consequently, each mechanism relies upon similar logic for action, which is the fourth dimension of Scott's framework, where specific logical processes define the relationships between subjects, practices, and objects.<sup>22</sup> The fifth dimension consists of basic indicators for each pillar's isomorphic logic for action.

The sixth dimension describes each pillar's affective aspects, where affect is defined as the manifestation of emotion or feeling associated with each pillar. According to Scott, emotional and substantial meanings infuse systems.<sup>23</sup> Scott elaborates by observing, "Almost any type of stimulus evokes some sort of affective response, and many types of symbolic expressions—thanks, apologies, curses—specifically refer to feelings. Much of the motivation that propels action in any situation

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<sup>21</sup> Thornton, Ocasio, and Lounsbury, *The Institutional Logics Perspective*, 36.

<sup>22</sup> Scott, *Institutions and Organizations*, 90; Isomorphism is defined by Amos Hawley as "a constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions," as quoted in Thornton, Ocasio, and Lounsbury, *The Institutional Logics Perspective*, 25.

<sup>23</sup> Scott, *Institutions and Organizations*, 46.

comes from the feelings evoked by the shifting patterns of meanings.”<sup>24</sup> This affective dimension of the framework explains why members of institutions often react emotionally to stimuli for change.

The seventh and final dimension is the basis of legitimacy for each pillar. Scott refutes the notion of legitimacy serving as a commodity to be bought and sold, and suggests it relies on the interplay between relevant rules, norms, and cultural-cognitive patterns.<sup>25</sup> Thornton, et al., elaborate on the dimension of legitimacy for each pillar of Scott’s framework. Legitimacy benefits from the predictability associated with the regulative pillar’s obedience to legal requirements, the normative pillar’s imperative to conform to proper roles, while also complying with a definitional latticework of patterns in the cultural-cognitive pillar.<sup>26</sup> The importance of maintaining legitimacy will be examined further below, but lacking legitimacy creates institutional crisis when the institution seeks to control or adapt to its environment. Institutions rely on legitimacy to function, as legitimacy is basic to social construction.<sup>27</sup>

In sum, regulative systems (rules), normative systems (norms), and cognitive-culture systems (culture) all have varied explanatory power in describing the ideals, ideas, and behavior of organizations and institutions. However, if each is treated in isolation, as many explanations of military institutions have, the explanation is stunted. As James Q. Wilson remarked, “it is foolish to speak of bureaucracy as if it were a single phenomenon.”<sup>28</sup> Furthermore, when treating these factors in isolation instead of interaction, one runs the risk of creating a caricature, in that explanations can only end in a summary determination of “pathologies” with no alternative elements to be

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<sup>24</sup> Scott, *Institutions and Organizations*, 46.

<sup>25</sup> Scott, *Institutions and Organizations*, 72.

<sup>26</sup> Thornton, Ocasio, and Lounsbury, *The Institutional Logics Perspective*, 36–37.

<sup>27</sup> Scott, *Institutions and Organizations*, 72.

<sup>28</sup> Wilson, *Bureaucracy*, 48.

considered.<sup>29</sup> Scott's framework is valuable because it relates and connects each disparate factor as a separate lens for the interdependent and mutually reinforcing connections within an institution.

### **Detailed Analysis of Scott's Framework**

Scott describes each element as a "pillar" of the whole institution in detail, implying that failure to analyze all relevant factors may lead to erroneous conclusions. Analysis of a single pillar separated from the others risks missing the interplay between pillars. Typically, the pillars reinforce each other in stable social systems. This is not to suggest a single pillar cannot gain primacy, as one pillar may overshadow the others in a given situation. However, alignment of all pillars is critical, as misalignment can result in skewed, less effective decision-making.<sup>30</sup>

As seen in Table 1, each pillar has a distinct and mutually reinforcing basis of compliance, order, and logic. As noted previously, each pillar's principal dimensions are captured in the rows of the table. The basis of compliance for each pillar not only not only helps to bring order from uncertainty, but also provides a methodology for how order is created within an institution. This provides an approach for analysis of the mechanisms that shape the ideals, ideas, and behavior of an institution both logically and affectively. This, in turn, provides indicators that can be observed and correlated to evaluate the legitimacy of the institution. Scott's framework is inclusive of three divergent pillars of organization theory, but demonstrates the elements of one pillar influence and shape the elements of another pillar.<sup>31</sup>

As formal organizations, the U.S. Army and U.S. Air Force must deal with these institutional elements identified by Scott. The following subsections examine each pillar dimension-by-dimension and place

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<sup>29</sup> Wilson, *Bureaucracy*, 34.

<sup>30</sup> Scott, *Institutions and Organizations*, 70–71.

<sup>31</sup> Scott, *Institutions and Organizations*, 59, 60.



Scott's framework within the context of military institutions. The concepts associated with each pillar are used to examine the evidence presented in the next two chapters. These pillars played a significant role in defining each service's military-strategic choices before and during Operation Desert Storm.

### **The Regulatory Pillar**

According to Scott, formal organizations "constrain and regularize behavior" via explicit processes. These processes are either set for them by policy makers or self-determined based on their bureaucratic function. These processes include rule setting, monitoring, and sanctioning of activities. As shown in Table 2, the regulatory pillar is driven by seven dimensions or factors, including expedience, regulations, coercion, consequences, rules/laws/sanctions, fear, and legal sanctions.

The key mechanism of the regulatory pillar is coercion, whereby the institution and its individuals are subject to either internal or

**Table 2. The Regulative Pillar**

	<b>Regulative Pillar</b>
<b>Basis of Compliance</b>	Expedience
<b>Basis of Order</b>	Regulative Rules
<b>Mechanisms</b>	Coercive
<b>Logic</b>	Consequences
<b>Indicators</b>	Rules Laws Sanction
<b>Affect</b>	Fear Guilt/Innocence

Source: Adapted from W. Richard Scott's Table 3.1, "Three Pillars of Institutions," *Institutions and Organizations: Ideas, Interests, and Identities*, Fourth Edition (Los Angeles: SAGE Publications, Inc, 2013), 60.

external authority. By force of coercion, institutions are constrained in their action by obligation, precision, and delegation. Obligation determines the limits restricting actors and provides the means by which external parties scrutinize the actor's conformity. Precision relates to ambiguity of rule requirements. Finally, delegation refers to the authority third

parties have in applying rules and settling disagreements.<sup>32</sup>

But why constrain military institutions? Quite simply, because military institutions hold such significant power that they require rule setting, monitoring, and sanctioning in order to ensure the common defense and avoid abuse of power. The common defense, according to Samuel Huntington, “involves a complex balancing of power and attitudes among civilian and military groups.”<sup>33</sup> Constraints are required because the modern military services, as institutions, have a monopoly over “the management of violence.”<sup>34</sup> Wilson suggests there are three general constraints on governmental action:

- (1) Government agencies cannot lawfully retain and devote to the private benefit of their members the earnings of the organization;
- (2) Government agencies cannot allocate the factors of production in accordance with the preferences of the organization’s administrators [without authorization]; and,
- (3) Government agencies must serve goals not of the organization’s own choosing.<sup>35</sup>

Given the dialectical external/internal nature of the regulatory pillar, Wilson highlights the importance of the demands of external entities on military institutions. As a result, organizational constraints affect the management of a government agency.<sup>36</sup> While the regulatory influence upon military institutions includes roles, functions, and missions, the function of rules focuses on directing what the service is forbidden to do.

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<sup>32</sup> Scott, *Institutions and Organizations*, 60.

<sup>33</sup> Samuel P. Huntington, *The Soldier and the State: The Theory and Politics of Civil-Military Relations* (Cambridge: Belknap Press of Harvard University Press, 1957), 2.

<sup>34</sup> Harold D. Lasswell, “The Garrison State,” *American Journal of Sociology* 46, no. 4 (January 1, 1941): 463; Huntington, *The Soldier and the State*, 11–12.

<sup>35</sup> Wilson, *Bureaucracy*, 115.

<sup>36</sup> Wilson, *Bureaucracy*, 115.



Ideally, the actors within military institutions are obligated to obey because their behavior is subject to scrutiny by external parties within the federal government. The delegation of national security responsibilities from principals in the federal government to agents in military institutions in the United States is often done with regard for the professionalism and relative expertise in the “management of violence.”<sup>37</sup> Such delegation highlights the importance of precision in rules provided to the military institutions from their overseers. But the ambiguity of the security environment creates uncertainty as to whether civilians in democracies can detect behavior in the military that exceeds the institution’s constraints. One must also ask whether principals, can or will punish military institutions for such behavior.<sup>38</sup>

**Logic of Action: Consequences.** According to Peter Feaver, there are at least five categories of punishments policy makers can bring to bear against the military services. The first category includes placing institutional autonomy at risk by imposing a monitoring arrangement. Examples include audits and requirements for mandatory remedial training. Second, policy makers can use Wilson’s constraints, noted above, by reducing the service’s budget. Third, which Feaver believes is the most prevalent, is the dismissal of military leaders. Penalties include discharge before earning retirement benefits, forfeiture of benefits for cause, and forced retirement below grade. Fourth, policy makers can impose specific costs for undesirable behaviors, using the Uniform Code of Military Justice. Finally, Feaver suggests policy makers can punish the personnel of the military services via extra-legal action such as public rebukes and purges. Ultimately, all these punishments either directly or indirectly serve Wilson’s third general constraint that the military

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<sup>37</sup> Peter D. Feaver, *Armed Servants: Agency, Oversight, and Civil-Military Relations* (Cambridge, Mass.; London: Harvard University Press, 2005), 87.

<sup>38</sup> Feaver, *Armed Servants*, 89–90.

services are obliged to accomplish goals not of the organization's own choosing.<sup>39</sup>

**Limits to Regulatory Obligations.** There are limits, however, to the regulatory obligations of the military services. The chief impediment to regulatory obligation is the measurement of compliance because many rules placed upon institutions lack precision. The lack of precision begets ambiguity in expectations, which, in turn, begets ambiguity in obligation. While there is a wide range of monitoring tools available to policy makers to detect deviation from the constraints placed on military institutions, they are imperfect because they lack precision. These monitoring mechanisms include building incentives for compliance with constraints, restricting the delegation of authority for the use of force in a way that threatens autonomy, screening and selection for leaders, the use of third parties in verification such as interest groups or the news media, or a mixture of these mechanisms.<sup>40</sup>

While the military services often find these monitoring mechanisms loathsome, in reality, given the vagaries of serving the common defense, it is extremely difficult for policy makers to detect when an institution is doing too little, which Wilson calls shirking and even more difficult to determine when it is doing the wrong thing, which he calls subverting.<sup>41</sup>

Despite the difficulties of monitoring and punishing the military services within the regulatory lens of Scott's institutional framework, rules still have important weight. Wilson suggests the consequential force of rules applicable to institutions should be considered in two different respects: First, are the institution's *actions* observable? Second, are the institution's *results* observable? The former addresses concerns over subverting regulatory constraint, while the latter

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<sup>39</sup> Feaver, *Armed Servants*, 87–94.

<sup>40</sup> Feaver, *Armed Servants*, 75–87.

<sup>41</sup> Wilson, *Bureaucracy*, 156.

addresses matters of shirking one's duties. Wilson's characterization (see Figure 1) creates a simple matrix to aid understanding of the application of coercive mechanisms of both monitoring and punishment.

In the first quadrant, which Wilson labels as a Production Organization, both the actions and the results of the organization are

		<b>ACTIONS</b>	
		<u>Observable</u>	<u>Unobservable</u>
<b>RESULTS</b>	<u>Observable</u>	<b>Production Organization</b>	<b>Craft Organization</b>
	<u>Unobservable</u>	<b>Procedural Organization</b>	<b>Coping Organization</b>

observable. Military organizations, according to Wilson, do not fit well into this category. This archetypical mold more aptly fits production organizations such as the Internal Revenue Service, Social Security Administration, and the United States Postal Service.

**Figure 1. Wilson's Characterization of Government Organizations**

Source: James Q. Wilson, *Bureaucracy: What Government Agencies Do and Why They Do It* (New York: Basic Books, 1989), 159-171.

In the opposite quadrant of Figure 1, which Wilson refers to as the archetypical Coping Organization, neither actions nor results are

observable. Wilson suggests the Coping model does not fit military services because it lacks monitoring and punishment mechanisms. Instead, organizations focused upon education, diplomacy, and some aspects of policing and public safety are the best fit for this type of organization.<sup>42</sup> This analysis raises the question: Which of the remainder characterizations best fits the military institutions?

<sup>42</sup> Wilson, *Bureaucracy*, 159-171.

According to Wilson, military institutions fit well within both the Procedural Organization and the Craft Organization types, as shown in Figure 2. In the Procedural Organizational mold, monitors can measure



**Figure 2. Wilson's Characterization of Military Organizations**

Source: James Q. Wilson, *Bureaucracy: What Government Agencies Do and Why They Do It* (New York: Basic Books, 1989), 159-171.

a military institution in peacetime quantitatively on its ability to meet the objectives of policy makers while not exceeding their constraints. Wilson explains, "Every detail of training, equipment, and deployment is under the direct inspection of company commanders, ship captains, and squadron leaders. But none of these factors can be tested in the only way that counts, against a real enemy, except in wartime."<sup>43</sup>

In this characterization, without the test of actual combat, the qualitative measurements of results consist of highly abstract factors: Is enemy aggression deterred? Are the military services adequately manned, trained, and equipped appropriately both to deter, and if necessary, defeat an adversary? These are value judgments, and thus are subject to multiple variances in terms of precision. This lack of precision, as discussed above, creates the possibility of shirking. However, the quantitative aspects of manning, training, and equipping the force can be measured, and thus are appropriate to monitoring and punishment. The precision associated with quantitative aspects of monitoring can substitute suspicions of subversions if monitors detect

<sup>43</sup> Wilson, *Bureaucracy*, 163.

deviations from the objectives or constraints imposed upon the military institutions.

In wartime, however, military services shift from the Procedural to the Craft archetype of organizations. According to Wilson, the Craft Organization “relies heavily on the ethos and sense of duty of its operators to control behavior.”<sup>44</sup> This suggests, while rules are relevant to monitoring and punishing the military during wartime, they are somewhat less relevant than in peacetime. Because war is dynamic, there is greater risk than in peacetime if changing ingrained tactics, technology, doctrine, and force organization. Thus, the measurable quantification of these aspects of preparation are less relevant than they are in peacetime.<sup>45</sup>

In qualitative terms, however, the judgment of success is highly intertwined with the normative aspects of organizational action.<sup>46</sup> This is not to say organizational behavior is not constrained or regularized by rules and laws in wartime. Rules of engagement and the laws of armed conflict are very important constraints against martial ideals, ideas, and behavior. Michael Walzer suggests rules of war restrict soldiers’ authority to kill in two ways., by outlining how and when they can kill along with identifying whom they can kill.<sup>47</sup> In the former set of rules, subversion of the war effort has occurred, and shirking has led to cases of indiscriminate killing as soldiers ignore the second set of rules.

Wilson paraphrases Max Weber when he suggests a defining and noble characteristic of bureaucracy exists in the ability to employ generic rules to specific situations creating a desirable sense of fairness and

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<sup>44</sup> Wilson, *Bureaucracy*, 167.

<sup>45</sup> Rosen, *Winning the Next War*, 22–39, 251–257.

<sup>46</sup> This will be discussed in the next section of this chapter regarding the normative pillar, however, this explicitly highlights why narrow usage of Scott’s framework limited to only one pillar will lead to stunted analysis.

<sup>47</sup> Michael Walzer, *Just And Unjust Wars: A Moral Argument With Historical Illustrations*, 4th ed. (New York: Basic Books, 2006), 41.

predictability.<sup>48</sup> However, contrary to Weber, one can ultimately see the extant limit of general rules upon the specific ideals, ideas, and behavior of a military institution. The force and sanction of the regulatory pillar of Scott's framework along a spectrum weighs more heavily upon behavior than ideas, and in turn, more on ideas than on organizational ideals. The most pertinent consideration for military organizations here is the use of force toward the accomplishment of objectives without violating the levied constraints.<sup>49</sup> As Scott explains, force, sanctions and expediency represent critical aspects of the regulatory pillar, yet rules offset these punitive forces with rules delineating when such applications of force are deemed just.<sup>50</sup>

**Summary.** The regulatory pillar, contrary to Weber's belief in the defining characteristic of bureaucracy, has limits both in terms of precision in monitoring for shirking and subversion and in terms of clearly identifying obligation. This pillar is limited, in part, by the codification of rules, regulations, and objectives in a general manner to meet wide sets of circumstances that precludes precision. But the inherent difficulties in determining extant obligation and appropriately delegating authority has practical limits as well. The limitation in precision is why according to Allison and Zelikow, "organizations interpret mandates into their own terms," which often leads to favorable interpretation of obligation.<sup>51</sup>

Finally and most importantly, when comparing the regulatory pillar to the other pillars, the behavior of the military services that results from regulation provides them with an *imperative* of obligation for their ideals, ideas, and behavior. This is termed the logic of consequence

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<sup>48</sup> Wilson, *Bureaucracy*, 334–335.

<sup>49</sup> Mark Clodfelter, *The Limits of Air Power: The American Bombing of North Vietnam* (Lincoln, NE: University of Nebraska Press, 2006), 216–218.

<sup>50</sup> Scott, *Institutions and Organizations*, 59–64.

<sup>51</sup> Allison and Zelikow, *Essence of Decision*, 167.



because choices of behavior, and to a lesser extent ideas and ideals, are interpreted based on their anticipated consequences.<sup>52</sup> The logic of consequences is a divergent and distinct logic from another institutional imperative, the logic of appropriateness. The distinction between the logics of consequence and appropriateness raises an additional point. It is common, but semantically incorrect, to use the word *preference* to describe the ideals, ideas, and behavior of military institutions. An *imperative* precludes *preference* in choices of action. The logic of consequence is not a rationality of preference, it is the reflection of an imperative.

### The Normative Pillar

Professional norms also shape the way institutions perform their tasks.<sup>53</sup> An emphasis on the normative function of organization theory provides social groups a prescriptive, evaluative, and obligatory

**Table 3. The Normative Pillar**

	<b>Normative Pillar</b>
<b>Basis of Compliance</b>	Social Obligation
<b>Basis of Order</b>	Binding Expectations
<b>Mechanisms</b>	Normative
<b>Logic</b>	Appropriateness
<b>Indicators</b>	Certification Accreditation Trust
<b>Affect</b>	Shame/Honor
<b>Basis of Legitimacy</b>	Morally Governed

Source: Adapted from W. Richard Scott's Table 3.1, "Three Pillars of Institutions," *Institutions and Organizations: Ideas, Interests, and Identities*, Fourth Edition (Los Angeles: SAGE Publications, Inc. 2013). 60.

explanation for the behavior of formal organizations. Norms represent the distinction between an organization, which is merely an expedient, and an institution that ascribes to a collective purpose.

Institutions are organizations that develop a discreet set of value commitments heavily reliant upon the dimensions of social obligation via roles, binding expectations, and

<sup>52</sup> James G. March, *Primer on Decision Making: How Decisions Happen* (New York: Free Press, 2009), 2.

<sup>53</sup> Wilson, *Bureaucracy*, 86.

appropriateness to define their purpose (see Table 3). According to Scott, both values and norms exist in normative systems. Values are the preferred concepts coupled with standards allowing comparison or assessment of existing structures or behaviors. Norms specify how actors should conduct business by defining legitimate means to reach valued ends.<sup>54</sup>

**Logic of Action: Appropriateness.** Like the regulative pillar, the normative pillar establishes what James March and Herbert Simon refer to as a “logic of action.” The key distinction between rules and norms is in the former’s logic of “consequence,” and the latter’s logic of “appropriateness.” Within the logic of consequence, actors rationally choose actions based on expected consequences. Anticipation, analysis, and calculations serve as selective heuristics as actors assess alternatives of each potential decision. Within the logic of appropriateness, actors make decisions based on past experiences. Familiarity, frequency, and matching current situations with past processes generate certain expectations within the social order. The logic of appropriateness represents the actor’s judgment reliant on these previous actions and the expectations of similar activity.<sup>55</sup>

Elsewhere, March suggests the logic of appropriateness contrasts with the logic of consequences because of the former’s development of an identity within an institution. The development of an identity implies the social creation of a role within society that attaches to it determinations of what is proper for that role and what is not.<sup>56</sup> According to March, within this lens of organization theory, rather than weighing imperatives

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<sup>54</sup> Scott, *Institutions and Organizations*, 64.

<sup>55</sup> James G. March and Herbert A. Simon, *Organizations*, 2d Edition (Cambridge, Mass., USA: Wiley-Blackwell, 1993), 8; as quoted in Allison and Zelikow, *Essence of Decision*, 146.

<sup>56</sup> March, *Primer on Decision Making*, 57, 58.



in light of consequences, the logic of appropriateness drives institutions to fulfill identities and play a role based on a different set of parameters focused on appropriateness to the given situation they find themselves.<sup>57</sup>

The logic of appropriateness, which underpins Scott's Normative Pillar, utilizes recognition, identity, and norms to shape ideals, ideas, and behavior. Recognition shapes how an institution identifies its context by asking: What kind of situation is this? How should the organization interpret the present context? Identity shapes how the institution places itself within a given context by asking: What kind of organization is this? What is the unique purpose of this organization?

**Influence of Norms.** The organization making decisions based on the logic of appropriateness runs into problems looking to the past for precedence, rather than to the future for possible consequences.<sup>58</sup> In short, the logic of appropriateness lacks the cold calculation of the logic of consequence in favor of normative considerations.

Another useful way of thinking about norms is via the mechanism of affection, which is defined as an emotion or desire.<sup>59</sup> If rules influence individual decisions, norms influence the decisions of collective groups and formal organizations. Thus, institutions tend to shape individuals' behavior in the organization through informal and formal norms.<sup>60</sup> This shaping of behavior of individuals, which March refers to as a process of "internalization," not only defines "goals or objectives but also designates appropriate ways to pursue them."<sup>61</sup> This creates a feeling of cohesiveness that shares an appropriate appreciation for artifacts of

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<sup>57</sup> March, *Primer on Decision Making*, 57.

<sup>58</sup> March, *Primer on Decision Making*, 58–59.

<sup>59</sup> "Affect," *Oxford Advanced Learner's Dictionary*, accessed April 13, 2015, <http://www.oxforddictionaries.com/us/definition/learner/affect>.

<sup>60</sup> Allison and Zelikow, *Essence of Decision*, 145.

<sup>61</sup> March, *Primer on Decision Making*, 63–65; Scott, *Institutions and Organizations*, 64.

experience. Like the regulatory pillar, the normative pillar has a contextual influence upon ideals, ideas, and behavior.

**Professionalism.** The expectations of institutional behavior, not only as individuals, but also as whole, give rise to what is known as professionalism.<sup>62</sup> Allison and Zelikow suggest internalization occurs because of the shared ideals that increase legitimacy and status matter much more to people within the organization than to people outside of the organization.<sup>63</sup> Implied with this expectation is a principal-agent relationship, in which the professional, as agent, demonstrates attention to norms and values on behalf of a principal.

The incentives controlled by the agent do not wholly determine professional aspects of the principal-agent relationship. Therefore, external standards, rather than internal imperatives, often guide the way people define their tasks. The approval of such alignment of functional ideals, ideas, and behavior of the agent requires deference and trust from the principal. However, if professional deference and trust are indicators of institutional norms, what is a professional? Wilson suggests sources of reward drive professionals to follow organizational behavior rather than status, income or deference. The more a person desires occupational recognition offered by groups of like professionals, the more professional the person becomes. The logical conclusion of such a concept means a job position does not automatically deem the occupant as a professional.<sup>64</sup>

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<sup>62</sup> Huntington, *The Soldier and the State*, 7, defines profession as "a peculiar type of functional group with highly specialized characteristics;" further, he suggests professionalism "is characteristic of the modern officer in the same sense in which it is characteristic of the physician or lawyer." A more formal definition suggests professionalism is "the high standard that you expect from a person who is well trained in a particular job," "Professionalism," *Oxford Advanced Learner's Dictionary*, accessed April 24, 2015,

<http://www.oxforddictionaries.com/us/definition/learner/professionalism>.

<sup>63</sup> Allison and Zelikow, *Essence of Decision*, 156.

<sup>64</sup> Wilson, *Bureaucracy*, 60.

Given the importance of the role of the military services in providing security to the nation, professionalism is an imperative and is expected of military members. As a part of professionalism, the norms and values of the military services are centered upon the preparation for and fighting of war, which is what Samuel Huntington referred to as the functional imperative of military institutions.<sup>65</sup> The normative importance of the professional warrior is universal and timeless, and found as far back as the ancient poem *The Illiad*.<sup>66</sup> Huntington matchlessly considered this warrior ethos in *The Soldier and the State*, and it is worthwhile to consider the emphasis given to the subject of professionalism at military institutions at all levels. As Huntington states:

[The] military ethic views conflict as a universal pattern throughout nature and sees violence rooted in the permanent biological and psychological nature of men. As between the good and evil in man, the military ethic emphasizes the evil. Man is selfish. He is motivated by drives for power, wealth, and security.... As between the strength and weakness in man, the military ethic emphasizes the weakness. Man's selfishness leads to struggle but man's weakness makes successful conflict dependent upon organization, discipline, and leadership.... The military profession organizes men so as to overcome their inherent fears and failings.... Human nature, moreover, is universal and unchanging. Men in all places and at all times are basically the same. The military view of man is thus decidedly pessimistic.... The existence of the military profession depends upon the existence of competing nation states. The responsibility of the profession is to enhance the military security of the state. The discharge of this responsibility requires cooperation, organization, discipline. Both because it is his duty to serve society as a whole and because of the nature of the means which he

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<sup>65</sup> Huntington, *The Soldier and the State*, 2–3. In addition to the functional imperative, Huntington also describes the societal imperative that requires a balance between the two. This is what Huntington suggests is the core of civil-military relations, but is beyond the scope of this present analysis.

<sup>66</sup> Patricia M. Shields, "Military Privatization: The Normative/Affective Context," March 1, 1990, 5–6, <https://digital.library.txstate.edu/handle/10877/3996>.

employs to carry out this duty, the military man emphasizes the importance of the group as against the individual. Success in any activity requires the subordination of the will of the individual to the will of the group.... The military ethic is basically corporative in spirit. It is fundamentally anti-individualistic.<sup>67</sup>

Huntington's description of the warrior ethos embraces the elements of professionalism: expertise, responsibility, and corporateness. Regarding expertise, the professional exhibits expertise through special knowledge of the task and keen skill to carry it out.<sup>68</sup> With regard to responsibility, the professional expertly works in a social context performing a service where social responsibility differentiates mere intellectually capable workers from true professionals. Huntington further suggests professionals serve as moral units reflecting special values and ideals guiding their actions with laymen.<sup>69</sup>

Finally, regarding corporateness, the concepts delineating professionals from laymen create an organic bond between professionals, which sets them apart from others. The group dynamic creates norms of competence establishing and enforcing these standards within the group.<sup>70</sup> Allison and Zelikow suggest professionals seek to set themselves apart from non-professionals through norms of behavior, effecting the group so completely as to create norms in forms of dress, while incentivizing adherence to such professional identities.<sup>71</sup>

Ultimately, Huntington's description of professionalism leans upon an identity of expertise with social obligation and binding expectation, governed by the normative "logic of appropriateness" with the special trust of its principal, from which it derives its authority. Therefore, the role of each military institution is derived from its identity, which at its

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<sup>67</sup> Huntington, *The Soldier and the State*, 63–64.

<sup>68</sup> Huntington, *The Soldier and the State*, 8.

<sup>69</sup> Huntington, *The Soldier and the State*, 9, 7.

<sup>70</sup> Huntington, *The Soldier and the State*, 10.

<sup>71</sup> Allison and Zelikow, *Essence of Decision*, 155.

core is normative. Elsewhere March and Simon suggest expertise ultimately produces professional intuition.<sup>72</sup>

**Roles of Military Institutions.** How does each military institution derive its role? The roles of military institutions are often dictated by structure of law, and most of these roles were established before laws specifically enumerated them. More importantly, roles are also formulated by theory. Clausewitz observed theory achieves purpose when actors use it to scrutinize constituent elements of war. Applying theory to all aspects of war allows the strategist to discern proper early judgments, examine warfare's means with likely associated effects, and define distinct ends. In essence, Clausewitz saw theory as illuminating all aspects along the timeline of war. "Theory then becomes a guide to anyone who wants to learn about war...it will light his way, ease his progress, train his judgment, and help him avoid pitfalls."<sup>73</sup>

Thus roles, viewed from a normative perspective, empower action via their distinctive "logic of appropriateness." The normative function of each military institution dictates unique constraints for behavior, via the expert judgment for appropriate employment of capabilities to achieve strategic effect. Scott defines roles as "conceptions of appropriate goals and activities" and notes these beliefs are more than probabilistic concepts, but gain more traction as expectations by recognizing how specific actors should behave.<sup>74</sup>

The normative pillar gives explanatory power to the roles military institutions fulfill. For example, the U.S. Army fills the primary role of

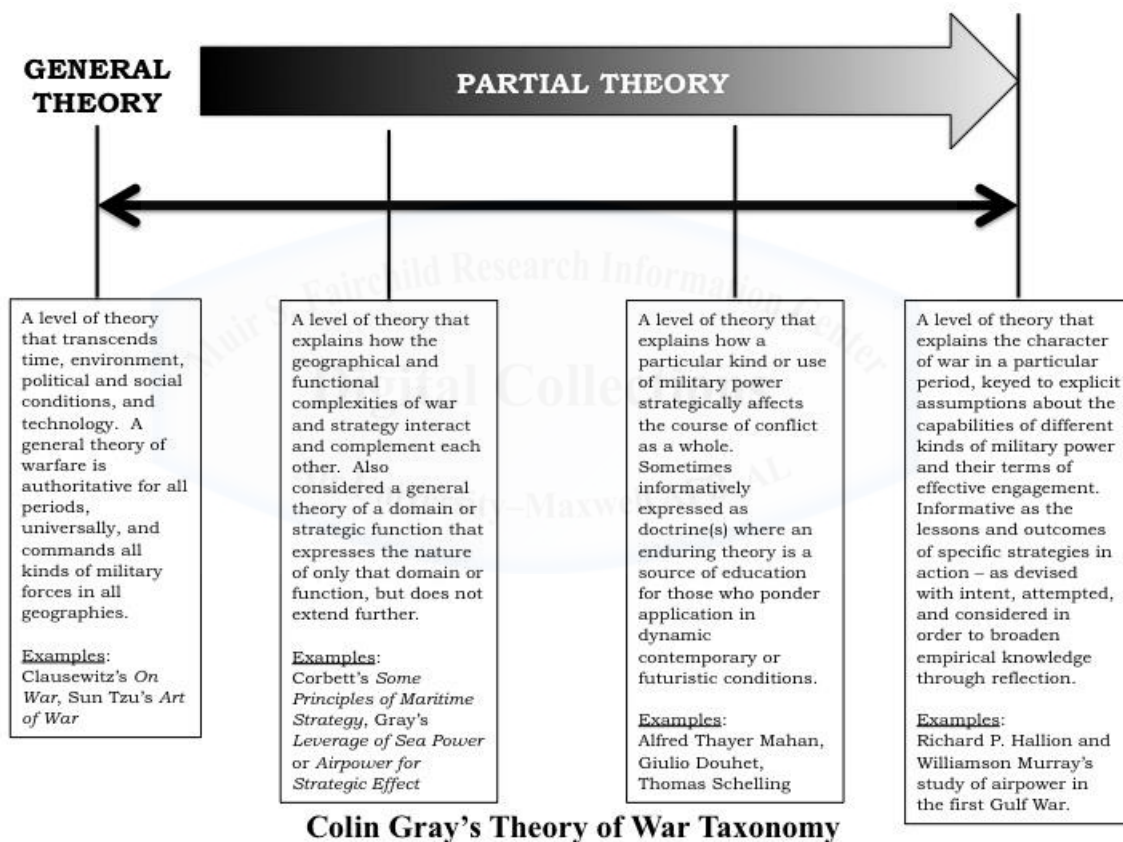
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<sup>72</sup> March and Simon, *Organizations*, 11.

<sup>73</sup> Clausewitz, *On War*, 141; Within his commentary regarding *On War*, Antulio J. Echevarria, II, observes "Without a reliable foundation, commanders could only depend on 'talent or the mere favor of fortune,'" and thus needed to develop individual judgment so they could internalize their craft of warfare so "it would be readily available when decisions were needed, and could serve as a basis for constructing subjective theories" about the context they were acting within; see *Clausewitz and Contemporary War* (Oxford [England]; New York: Oxford University Press, 2007), 30–31.

<sup>74</sup> Scott, *Institutions and Organizations*, 64.

providing land power in securing the security objectives for the nation, as the U.S. Navy does on the seas, and the U.S. Air Force in the air and space domains. Each service has a particular role to play in providing national security. These roles are socially constructed and serve as a basis for their partial theories of warfare. The theoretical aspects of the normative pillar are crucial to the roles military institutions play, and thus the partial theories of warfare exist within this pillar (see Figure 3).<sup>75</sup>



**Figure 3. Colin Gray's Theory of War Taxonomy**

Source: Gray, Colin S. *Modern Strategy*. New York: Oxford University Press, 1999., 124-127; and, Gray, Colin S. *Airpower for Strategic Effect*. Maxwell Air Force Base, Ala.: Air University Press, Air Force Research Institute, 2012, 31-33 (including Figure 1).

<sup>75</sup> This point is much indebted to Colin Gray for his instruction regarding the partial theories of war, which he treats subordinate to Carl von Clausewitz's General Theory of War as described in *On War*. See *Modern Strategy*, 124-127 and *Airpower for Strategic Effect*, 31-33 (Including Figure 1).



**Summary.** The normative pillar differs from the regulatory pillar in that it is less concerned with the instrumentality of rules than with the logic of appropriateness.<sup>76</sup> “The central imperative confronting actors,” in the normative function according to Scott, “is not ‘What choice is in my own best interests?’ but rather, ‘Given this situation, and my role within it, what is the appropriate behavior for me to carry it out?’”<sup>77</sup>

The norms that create the logic of appropriateness derive authority from both internalization and imposition from society. Similarly to the regulative function, analysis of institutional behavior in the normative function precludes explanations of *preference* in choices of action. Wherein the regulative pillar, action is dictated to institutions by force of deterrence and retribution; within the normative pillar of organization theory, the resultant action from their ideals, ideas, and behavior is still *imperative*, but positively so. If institutions have rational cause for following rules because of consequences, they equally have rational cause for obligatory behavior because of their judgment of appropriateness. In both cases, these causes establish imperatives for ideas, ideals, and behavior, despite the semantic misnomer that often refers to them as preferences. Preferences also matter, but they result from culture, rather than rules or norms.

### **The Cultural-Cognitive Pillar**

Early views of institutional logics were focused primarily on the regulatory and normative aspects of organizations. Examples of these theories include works from Max Weber, Talcott Parsons, Robert Bales, and Edward Shils.<sup>78</sup> But, as Scott explains, definitions and shared

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<sup>76</sup> Scott, *Institutions and Organizations*, 64–66.

<sup>77</sup> Scott, *Institutions and Organizations*, 65.

<sup>78</sup> Scott, *Institutions and Organizations*, 88; Max Weber, *Economy and Society: An Outline of Interpretive Sociology*, ed. Guenther Roth and Claus Wittich, New Ed edition, 2 vols. (Berkeley: University of California Press, 1978); Talcott Parsons, *The Social System* (New York: The Free Press/Macmillan, 1964); Talcott Parsons, Robert F. Bales,



strategies also shape behavior in addition to rules and operational norms.<sup>79</sup> Social systems, according to Peter Berger and Thomas Luckman, are also driven by common cognitive and cultural formations.<sup>80</sup>

In conjunction with rules and norms, these cultural-cognitive dimensions define social action to create acceptable solutions to what James Surowiecki refers to as “coordination problems.” According to Surowiecki, coordination problems are not sufficiently solved via the authority provided by rules and norms alone, but by a solution that is satiated not only the individual’s beliefs, but also the beliefs of a larger group of actors.<sup>81</sup> This observation highlights the importance of the cultural-cognitive pillar. This pillar not only emphasizes the attachment of meaning to commonly held beliefs as a manifestation of culture, but also requires a cognitive dimension that comprehends how information is coded and retained in meaningful patterns. While top-down authority drives the regulatory and normative pillars of institutions, the cultural-cognitive pillar gives them a bottom-up dynamic. But what exactly is culture?

This thesis uses Edgar Schein’s definition of culture as “a pattern of shared basic assumptions learned by a group as it solves its problems of external adaptation and internal integration, which has worked well enough to be considered valid and, therefore, to be taught to new

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and Edward A. Shils, *Working Papers in the Theory of Action* (Glencoe, IL: The Free Press, 1953).

<sup>79</sup> Scott, *Institutions and Organizations*, 47.

<sup>80</sup> Berger and Luckmann, *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*, 51.

<sup>81</sup> James Surowiecki, *The Wisdom of Crowds* (New York, NY: Anchor Books, 2005), 85–86.

members as the correct way to perceive, think, and feel in relation to those problems.”<sup>82</sup>

The central consideration for the cultural-cognitive pillar of institutions is its shared social pattern of basic assumptions.<sup>83</sup> Shared understandings form a cognitive paradigm that creates order out of uncertainty, just as rules and norms do for their respective pillars. These “shared conceptions,” according to Scott, frame meaning through the group’s social lens.<sup>84</sup> The shared understanding supporting this pillar is constructed into a constitutive schema, or organized pattern of thought, to provide structural stability, depth, breadth, and patterning or integration for organizations and institutions. (See Table 4).

With regard to structural stability, Schein suggests culture is an expression of group identity, which is a “major stabilizing force and will not be given up easily.”<sup>85</sup> To create this group identity, three things are necessary. First, people must be together sufficiently to develop significant coordination requirements. Second, a group must have the opportunity both to apply solutions to these

**Table 4. The Cultural-Cognitive Pillar**

	<b>Cultural-Cognitive Pillar</b>
<b>Basis of Compliance</b>	Shared Understanding
<b>Basis of Order</b>	Constitutive Schema
<b>Mechanisms</b>	Imitative
<b>Logic</b>	Tradition
<b>Indicators</b>	Common Beliefs Tacit Knowledge Harmony
<b>Affect</b>	Certainty/Confusion
<b>Basis of Legitimacy</b>	Comprehensible Recognizable Culturally Supported

Source: Adapted from W. Richard Scott’s Table 3.1, “Three Pillars of Institutions,” *Institutions and Organizations: Ideas, Interests, and Identities*, Fourth Edition (Los Angeles: SAGE Publications, Inc, 2013), 60.

<sup>82</sup> Edgar H. Schein, “The Concept of Organizational Culture: Why Bother?,” in *Organizational Culture and Leadership*, 4th Edition (San Francisco, CA: John Wiley & Sons, 2010), 18.

<sup>83</sup> Edgar H. Schein, “Coming to a New Awareness of Organizational Culture,” *Sloan Management Review* 25, no. 2 (Winter 1984): 3.

<sup>84</sup> Scott, *Institutions and Organizations*, 67.

<sup>85</sup> Schein, “The Concept of Organizational Culture: Why Bother?,” 16.

coordination problems and to observe the effects of their solutions. Finally, a group must sustain itself with new members.<sup>86</sup> Schein suggests an organization must pass meaningful and proven concepts on to newer members. Thus, passage of social patterns of action suggests such patterns have been identified by the group as ones operating in a useful ways and have been tested. Untested or debated patterns of action rarely survive passage to new members.<sup>87</sup>

Within the structural stability component of the definition of culture, Schein highlights the cognitive aspect, in which the act of observation implies a process of mental filtration and sense-making that resembles how science chooses paradigms.<sup>88</sup> Mental filtration and sense-making rely on cognition, in which the human faculty of perception is translated into observation, and individuals and groups play an active role in developing the solutions to their coordination problems. “We do not ‘have’ an observation (as we may ‘have’ a sense experience) but we ‘make’ an observation,” Karl Popper suggests. Thus, “we can assert that every observation is preceded by a problem, a hypothesis (or whatever we may call it)...[Which] is why observations are always selective, and why they presuppose something like a principle of selection.”<sup>89</sup>

**Paradigms of Culture.** Paradigms of culture, which Scott refers to as “constitutive schema,” are necessary for membership in communities of study or practice, and they are limited by our cognitive abilities.<sup>90</sup> Constitutive schema, then, are merely routines representing cultural

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<sup>86</sup> Schein, “Coming to a New Awareness of Organizational Culture,” 6–7; Surowiecki, *The Wisdom of Crowds*, 85–86, 90.

<sup>87</sup> Schein, “Coming to a New Awareness of Organizational Culture,” 7.

<sup>88</sup> Jeffrey W. Donnithorne, *Culture Wars: Air Force Culture and Civil-Military Relations*, Drew Papers 10 (Maxwell AFB, AL: Air University Press, 2013), 24.

<sup>89</sup> Karl R. Popper, *Objective Knowledge: An Evolutionary Approach*, Revised edition (Oxford Eng. : New York: Oxford University Press, USA, 1972), 342–343.

<sup>90</sup> Thomas S. Kuhn, *The Structure of Scientific Revolutions: A Guide to Method*, 4th ed. (University of Chicago Press, 2012), 11.

processes and ideals that reduce cognitive maintenance through reinforcement and elaboration.<sup>91</sup> According to Chester Barnard, an organization is merely a “system of consciously coordinated activities or forces of two or more persons.”<sup>92</sup> But the purpose of these constitutive schemas is to serve the need for cognitive certitude. Actors following cultural patterns and beliefs feel connected to the institution and less at odds with fellow members.<sup>93</sup> This provides meaningful evidence for the affective dimension that permeates Scott’s framework.

Schein suggests culture represents intangible, deeply held bonds cementing individuals’ relationships within a group.<sup>94</sup> Schein implies this is why culture is so difficult to observe. From such depth, it is inferred institutional culture relies upon tacit knowledge to form solutions to coordination problems. Michael Polanyi defines tacit knowledge as the human ability to “know more than we can tell.”<sup>95</sup>

Tacit knowledge supports constitutive schemas by establishing an integrative *gestalt* within an organization or institution.<sup>96</sup> Surowiecki refers to this *gestalt* as a “convention.” Conventions provide patterns of thought in culture to tackle problems without having to delve into significant thought about the situation’s resolution. They foster organized efforts across disparate, unconnected people. Cultural conventions develop out of necessity because any group or institution

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<sup>91</sup> Ronald Jepperson and Ann Swindler as quoted in Scott, *Institutions and Organizations*, 68; See also Surowiecki, *The Wisdom of Crowds*, 91 which highlights a concept known as “Schelling points” that describes the beneficial results of social action that result without centralized direction or verbal communication, and how shared experiences of group members eases successful coordination.

<sup>92</sup> As quoted in Wilson, *Bureaucracy*, 24.

<sup>93</sup> Scott, *Institutions and Organizations*, 70.

<sup>94</sup> Schein, “The Concept of Organizational Culture: Why Bother?,” 16.

<sup>95</sup> Michael Polanyi, *The Tacit Dimension*, Reissue edition (Chicago ; London: University Of Chicago Press, 2009), 4.

<sup>96</sup> Gestalt is defined as “a set of things, such as a person’s thoughts or experiences, that is considered as a single system which is different from the individual thoughts, experiences, etc. within it.” “Gestalt,” *Oxford Advanced Learner’s Dictionary*, accessed April 24, 2015, <http://www.oxforddictionaries.com/us/definition/learner/gestalt>.

that cannot manage itself internally cannot survive. Schein suggests there are six categories in which conventions form via consensus within a culture: language, boundaries, power and status, intimacy, rewards and punishments, and ideology, as indicated in Table 5. These categories constitute templates for institutional action due to internal factors of uncertainty and dictate how and when institutions will act based upon those factors.<sup>97</sup>

**Table 5. Organizational Problems of Internal Integration**

<b>Organizational Problems of Internal Integration</b>	
<b>Language</b>	Common language and conceptual categories. If members cannot communicate with and understand each other, a group is impossible by definition.
<b>Boundaries</b>	Consensus on group boundaries and criteria for inclusion and exclusion. One of the most important areas of culture is the shared consensus on who is in, who is out, and by what criteria one determines membership.
<b>Power &amp; Status</b>	Consensus on criteria for the allocation of power and status. Every organization must work out its pecking order and its rules for how one gets, maintains, and loses power. This area of consensus is crucial in helping members manage their own feelings of aggression.
<b>Intimacy</b>	Consensus on criteria for intimacy, friendship, and love. Every organization must work out its rules of the game for peer relationships, for relationships between the sexes, and for the manner in which openness and intimacy are to be handled in the context of managing the organization's tasks.
<b>Rewards &amp; Punishments</b>	Consensus on criteria for allocation of rewards and punishments. Every group must know what its heroic and sinful behaviors are; what gets punished through the withdrawal of rewards and, ultimately, excommunication.
<b>Ideology</b>	Consensus on ideology and "religion." Every organization, like every society, faces unexplainable events that must be given meaning so that members can respond to them and avoid the anxiety of dealing with the unexplainable and uncontrollable.

Source: Table 3, Edgar H. Schein, "Coming to a New Awareness of Organizational Culture," *Sloan Management Review* 25, no. 2 (Winter 1984): 11.

**Cultural Depth and Breadth.** If cultural depth is focused on the internal aspects of group survival and anxieties, cultural breadth is oriented largely on the group's external aspects. Culture must cover all aspects of an institution's functions. It therefore must be pervasive as to how an organization deals with its mission, environments, and internal operations.<sup>98</sup> If an institution's critical tasks are no longer relevant, or the institution cannot sufficiently acclimate its critical tasks to a changing external environment, it will cease to be relevant. According to Wilson, an institution's critical tasks "are those behaviors which, if

<sup>97</sup> Scott, *Institutions and Organizations*, 69; Thompson, *Organizations in Action*, 13.

<sup>98</sup> Schein, "Coming to a New Awareness of Organizational Culture," 7.



successfully performed by key organizational members, would enable the organization to manage its critical environmental problem.”<sup>99</sup> Military institutions, using their common parlance, refer to their critical tasks as roles, missions, and functions.

**Critical Tasks and Uncertainty.** The formulation of an institution’s critical tasks is not merely cultural, but the culture of a military institution will center on those core tasks that create its *raison d’être*.<sup>100</sup> The cultural aspects of a military institution are found in its missions and functions. Accordingly, Schein suggests problems of external adaptation affect its ability to survive in a constantly changing environment (see Table 6).

**Table 6. Organizational Problems of External Adaptation and Survival**

<b>Organizational Problems of External Adaptation and Survival</b>	
<b>Strategy</b>	Developing consensus on the primary task, core mission, or manifest and latent functions of the group.
<b>Goals</b>	Developing consensus on goals, such goals being the concrete reflection of the core mission.
<b>Means for Accomplishing Goals</b>	Developing consensus on the means to be used in accomplishing the goals—for example, division of labor, organization structure, reward system, and so forth.
<b>Measuring Performance</b>	Developing consensus on the criteria to be used in measuring how well the group is doing against its goals and targets—for example, information and control systems.
<b>Correction</b>	Developing consensus on remedial or repair strategies as needed when the group is not accomplishing its goals.

Source: Table 2, Edgar H. Schein, “Coming to a New Awareness of Organizational Culture,” *Sloan Management Review* 25, no. 2 (Winter 1984): 9.

A group’s management of external uncertainty is a driving factor for organizational culture because the purpose of organizations is to

<sup>99</sup> Wilson, *Bureaucracy*, 25.

<sup>100</sup> James M. Smith, “The Air Force Culture and Cohesion: Building an Air and Space Force for the Twenty-First Century.,” *Airpower Journal*, Fall 1998, 41; Wilson, *Bureaucracy*, 23–27; Priscilla Clapp, Morton Halperin, and Arnold Kanter, *Bureaucratic Politics and Foreign Policy*, Second Edition (Washington, D.C: Brookings Institution Press, 2006), 27; Donnithorne, *Culture Wars*, 24.

reduce uncertainty and risk.<sup>101</sup> This aspect of culture is often the crucial determinant in contingent interaction that creates preferences for structure and technology within military institutions. According to Thompson, when the task environment varies, complications arise for the organization as standard procedures fail to accommodate the changes. Moreover, the procedures constrain the organization while failing to correctly address the changing environment. In essence, a changing environment drives the organization to adapt by creating new procedures.<sup>102</sup> Contingency between the institution and external catalysts can be categorized in three ways: (1) changes in the task environment; (2) technology modifying innovations; or (3) the organization changes its domain and hence its task environment.<sup>103</sup>

Similar to how the imperatives of rules and norms drive organizations to protect their critical tasks from external uncertainties, the preferences of institutional culture forces adaptation to these uncertainties. Thompson sees adaptation consisting of three elements: buffering, leveling, and forecasting. Buffering is meant to absorb the environmental changes that affect institutions. Leveling is focused upon early detection of changes in the external environment so as to mitigate their effects. Forecasting is meant to anticipate aspects of the external environment in which the cultural organization must contend. When buffering, leveling, and forecasting do not sufficiently meet the needs of the institution or its external stakeholders, the institution is forced to resort to rationing. But for institutions, particularly those that serve as craft organizations such as military services in wartime, rationing is the

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<sup>101</sup> Wilson, *Bureaucracy*, 68.

<sup>102</sup> Thompson, *Organizations in Action*, 72–73.

<sup>103</sup> Thompson, *Organizations in Action*, 74; These categories described by Thompson are interrelated and, as alluded to in the introduction, describe in general the manifestations between the interaction of tactics, organization, doctrine, and technology as described in Murray and Knox, “Thinking About Revolutions in Warfare,” 12.



final resort because it signifies its preferences are exhausted and it is left with only imperatives for action until it regains the initiative.<sup>104</sup>

For military institutions, the cultural influence on buffering manifests itself in arguing for force-structure with which to accomplish their missions and functions. Typical methods of military leveling include deterrent demonstrations of overmatch and developing offsets in human and technological means within their respective domains. It is often in the lack of adaptation of buffering and leveling that military institutions upend the proper means-ends relationship between institutional purpose and mechanisms for achieving that purpose. Robert Merton termed such behavior “goal displacement,” in which overextended preference is transformed into unjustifiable sentiment and “an instrumental value becomes a terminal value” that rigidly precludes adaptation.<sup>105</sup> Finally, forecasting is typically used to ensure institutions have the elastic response available for contingencies.

Buffering, leveling, and forecasting are inherently cultural manifestations because they focus upon the military organization’s critical tasks and essence. Morton Halperin outlined several ways in which these preferences manifest themselves:

- (1) An organization favors policies and strategies that its members believe will make the organization as they define it more important.
- (2) An organization struggles hardest for the capabilities that it views necessary to the essence of the organization. It seeks autonomy and the funds needed to pursue the capabilities necessary to fulfill its missions.
- (3) An organization resists efforts to take away the functions that it views as part of its essence. It

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<sup>104</sup> Thompson, *Organizations in Action*, 18–23.

<sup>105</sup> Robert K. Merton, “Bureaucratic Structure and Personality,” *Social Forces* 18, no. 4 (May 1, 1940): 562, 563, doi:10.2307/2570634.

seeks to protect those functions by taking on additional functions if it believes that forgoing the added functions may ultimately jeopardize its sole control over the essence of its activities.

- (4) An organization is often indifferent to functions not seen as part of its essence or as necessary to protect its essence. It tends not to initiate new activities or seek new capabilities even when technology makes them feasible.
- (5) Sometimes an organization attempts to push a growing function out of its domain entirely. It begrudges expenditures on anything but its chosen activity. It is chary of new personnel with new skills and interests who may seek to dilute or change the organization's essence.<sup>106</sup>

**Patterning, Integration, and Traditions.** Solutions to coordination problems go through a method of reification from repetitive patterns of action that form into organizational habits and ultimately into traditions. These traditions establish the common beliefs and internal harmony of institutions. Schein argues human nature seeks to sensibly order the environment into patterns or integration. Lack of such order creates anxiety and societies must adapt their conception of the environment into these predictable patterns to work effectively.<sup>107</sup> The fundamental character of culture then becomes apparent, that it is a product of social learning as well as affection for certainty, and therefore subject to the same internal and external pressures as the institution as a whole.

Similar to the internalization of the logic of appropriateness within the normative pillar, the logic of tradition in the cultural-cognitive pillar is a learned behavior on the part of members of the institution. Compliance with this cultural logic of action occurs because other types of ideals, ideas, and behavior are either inconceivable or result in

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<sup>106</sup> Clapp, Halperin, and Kanter, *Bureaucratic Politics and Foreign Policy*, 38–40.

<sup>107</sup> Schein, "The Concept of Organizational Culture: Why Bother?," 17.

dissonance unless the cultural paradigm shifts. As cultural conventions progress from basic solutions to routines and traditions, they begin to take on the appearance of orthodoxy to outside observers.<sup>108</sup> Similarly, when the lenses of such conventions are applied backward into history, the received wisdom of culture can sometimes approach orthopraxy, and thus the basis of organizational parochialism is formed. This tendency is particularly prevalent in military institutions.<sup>109</sup>

Such parochialism, which is a manifestation of cultural ideals, ideas, and behavior, is reinforced in the military because of its “closed-career principle” applied to force management.<sup>110</sup> Frederick Mosher describes the principle as follows:

The closed career principle as here understood envisages a personnel system composed of people selected soon after completion of their basic education on the basis of competitive examinations who are expected and who expect: (a) to spend the bulk of their working lives in the same organization; (b) to be advanced periodically on the basis of competition with their peers and evaluation by their superiors to top grades in their organization; and (c) to be protected in such competition from outsiders.<sup>111</sup>

In a closed-career personnel system, the organization’s leadership autonomously selects and promotes personnel. If the leadership can prevent external influences on their personnel system, the system

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<sup>108</sup> Scott, *Institutions and Organizations*, 69, 68.

<sup>109</sup> This approaches the idea suggested by Marc Trachtenberg, *The Craft of International History: A Guide to Method* (Princeton University Press, 2009), 23–24, which suggests the historian's fundamental goal is to make the past intelligible. However, the creation of causality is essentially subject to cultural interpretation. So, while the over-extension of any particular cultural lens on history is used in a pejorative and warning manner here, it is part and parcel to the human condition in any degree and every case.

<sup>110</sup> Smith, “The Air Force Culture and Cohesion,” 41–42.

<sup>111</sup> Frederick C. Mosher, “Some Observations about Foreign Service Reform: ‘Famous First Words,’” *Public Administration Review* 29, no. 6 (November 1, 1969): 605, doi:10.2307/974101.

perpetuates a homogenized and conformist culture based on their desired patterns.<sup>112</sup>

Therefore, acculturation of constitutive schemas is also conditional upon the basis of rules and norms placed on a military institution that deems the closed-career principle not only appropriate (as result of norms), but also a necessary matter of consequence (as result of rules). Equally, culture shapes the rules and norms for the closed career principle. Thus, an institution cannot change one without creating an impact to the cultural process of reification of conventions into traditions. So while culture changes slowly, it can be pushed and pulled by the various pillars of the military institution, particularly when the changes enhance environmental uncertainty and anxiety over its critical tasks and essence.<sup>113</sup>

Two final points about culture are noteworthy. The first concerns how culture manifests itself as a matter of preference. As noted previously, often, discussions regarding military institutions use the term preference to describe a service's ideals, ideas, and behavior. Within the cultural pillar, the usage of *preference* versus *imperative* is completely proper. This should not be a surprise to anyone who has given organizational theory serious study, however, preference as a term is overused for all the various reasons explained above. Thus, use of the term preference, even for those situations where causation might be better explained as an imperative, creates a semantic confusion in terms. Also, it reifies preference and thus culture as a matter of causation without sufficient examination.

To restate, *preferences* imply the act of choosing one alternative over another, whereas an *imperative* is unavoidable, necessary, or commanded. To equivocate that rules imposed upon the institution, or

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<sup>112</sup> Mosher, "Some Observations about Foreign Service Reform," 605.

<sup>113</sup> Smith, "The Air Force Culture and Cohesion," 42.

the command norms hold over it, are a matter of choice is a serious misunderstanding; and yet, such is the character of analysis that dominates organizational analysis of military institutions.

Second, and an extension of the previous point, is the overemphasis upon culture in shaping the ideals, ideas, and behavior of military institutions. Where norms favor ideals, and rules constrain behavior, culture has a more pervasive effect on ideals, ideas, and behavior. A recent analysis by Jeffrey Donnithorne substantiates this assertion, "Culture informs the worldview of any organization but appears to *dominate* the worldview of a military service."<sup>114</sup> Several prominent analysts force the varied and disparate factors that influence the ideals, ideas, and behavior of institutions into a single dependent variable that is culture. These analysts include, but are not limited to, Carl Builder, John Nagl, Jeffrey Legro, Elizabeth Kier, and Jeffrey Donnithorne.<sup>115</sup>

Adam Stulberg and Michael Salomone see a common thread in these studies and suggest "military culture represents the intellectual and inter-subjective capacity of the different armed services to come to grips with the tasks of preparing for and waging war in different strategic, political, and technological settings."<sup>116</sup> This poses a methodological problem for analysis. As Colin Gray notes, "a critic would be correct in observing that if strategic culture is everywhere it is, in

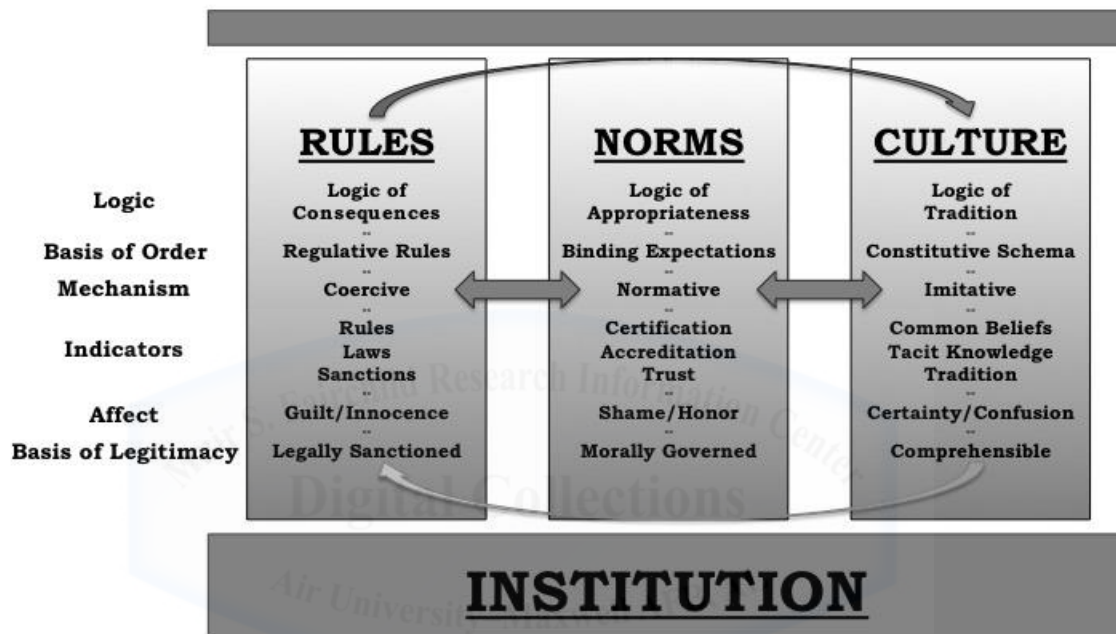
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<sup>114</sup> Donnithorne, *Culture Wars*, 26.

<sup>115</sup> Carl H. Builder, *The Masks of War: American Military Styles in Strategy and Analysis*, A Rand Corporation Research Study (Baltimore: Johns Hopkins University Press, 1989), 6; John A. Nagl and Peter J. Schoomaker, *Learning to Eat Soup with a Knife: Counterinsurgency Lessons from Malaya and Vietnam*, 1st edition (Chicago: The University of Chicago Press, 2005); Jeffrey W. Legro, "Military Culture and Inadvertent Escalation in World War II," *International Security* 18, no. 4 (April 1, 1994): 117, 126, doi:10.2307/2539179; Jeffrey W. Legro, *Cooperation Under Fire: Anglo-German Restraint During World War II*, 1st edition (Cornell University Press, 2013); Elizabeth Kier, *Imagining War* (Princeton, N.J.: Princeton University Press, 1999), 38; Donnithorne, *Culture Wars*, 26–27.

<sup>116</sup> As quoted in Donnithorne, *Culture Wars*, 27.

practicably researchable terms, nowhere.”<sup>117</sup> Gray’s comment was not as dismissive as it seems of the contributions of the aforementioned analysts. He later qualified his comment with the observation that “no one and no institution can operate ‘beyond culture.’”<sup>118</sup> So, there is good cause to disaggregate the effect of rules, norms, and culture on military institutions despite their interrelated effect on one another.



**Figure 4. The Interaction of Rules, Norms, and Culture in Institutions**

Source: Adapted from Scott, W. Richard. *Institutions and Organizations: Ideas, Interests, and Identities*. Fourth Edition. Los Angeles: SAGE Publications, Inc, 2013, 60.

**Summary.** Culture is only one of the three interrelated pillars of military institutions that contribute to the collective rationality that drives a theory of victory (see Figure 4). Culture may dominate the ideals, ideas, and behavior of military institutions in *certain* contexts. Gray emphasizes this point eloquently: “The methodologically awesome qualifier ‘to some degree’ is the nub of the problem. It is not the case, however, that to see all strategic behavior as culturally influenced is to explain everything and therefore to explain nothing. There is vastly more

<sup>117</sup> Gray, *Modern Strategy*, 132.

<sup>118</sup> Gray, *Modern Strategy*, 129.



to strategy and strategic behavior than culture alone.”<sup>119</sup> Even Donnithorne laments, “If *everything* can be attributed to culture, then it lacks utility as an analytic construct.”<sup>120</sup> This is precisely why study of military institutions must disaggregate the ideals, ideas, and behavior of the services in terms of rules, norms, *and* culture.

### **Synthesis: Military Institutions and Their Theories of Victory**

When considering *why* the military institutions do what they do, one must also be attentive to *what* and *how* they do it. Here, we find a requirement for the combination of Scott’s three pillars of institutions to form a collective rationality. Scott notes most empirically observed institutional forms include a varying combination of elements rather than a single element at work.<sup>121</sup>

The confluence of rules, norms, and culture constitutes an institution’s collective rationality. This institutional framework is what Charles Tilly described as an “encompassing theoretical framework,” one “that examines theories sharing broad objectives and attempts not simply to argue that they employ provide differing approaches, but to explicate the ways in which the approaches vary.”<sup>122</sup> Borrowing again from Allison and Zelikow’s analysis, one can recognize a theory of victory is the collective rationality for action from institutional processes of logic making where the logics of consequences, appropriateness, and tradition compete, and ultimately blend into, one rational mixture.<sup>123</sup> When applied to specific contexts, this institutional logic demonstrates rules and norms tell the institution *how* to behave within particular contexts, and culture tells the institution *what* to do within particular contexts. David Schneider describes this dynamic as follows:

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<sup>119</sup> Gray, *Modern Strategy*, 130.

<sup>120</sup> Donnithorne, *Culture Wars*, 22.

<sup>121</sup> Scott, *Institutions and Organizations*, 70.

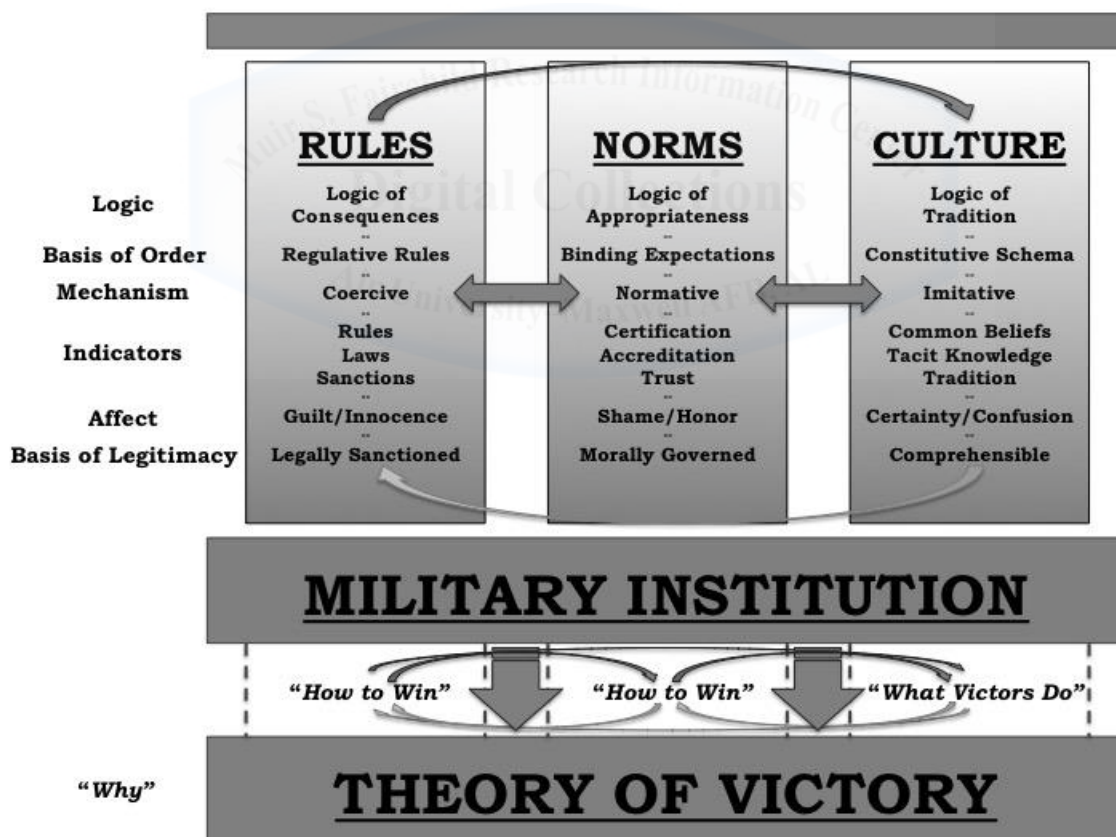
<sup>122</sup> As quoted in Scott, *Institutions and Organizations*, 80.

<sup>123</sup> Allison and Zelikow, *Essence of Decision*, 164.



Culture contrasts with norms in that norms are oriented to patterns for action, whereas culture constitutes a body of definitions, premises, statements, postulates, presumptions, propositions, and perceptions about the nature of the universe and man's place in it. Where [rules and] norms tell the actor *how to play the scene*, culture tells the actor how the scene is set and *what it all means*. Where [rules and] norms tell the actor *how* to behave in the presence of ghosts, gods, and human beings, culture tells the actor *what* ghosts, gods, and human beings are and *what* they are all about.<sup>124</sup>

Ultimately, in what becomes a holistic institutional logic, the social action of institutions involves the combination of calculation from the complementary logics of the regulatory, normative, and cultural pillars. This institutional logic is what Walter Powell and Paul DiMaggio refer to



**Figure 5. The Relationship Between a Military Institution and its Theory of Victory**

Source: Adapted from Scott, W. Richard. *Institutions and Organizations: Ideas, Interests, and Identities*. Fourth Edition. Los Angeles: SAGE Publications, Inc, 2013, 60.

<sup>124</sup> As quoted in Scott, *Institutions and Organizations*, 77.

as a “theory of practical action,” but for the purposes of military institutions, this thesis refers to this concept as a theory of victory.<sup>125</sup> The institutional theory of victory is the *why* for each military service’s ideals, ideas, and behavior (see Figure 5).

According to Gray, a theory of victory as a theory of practical action “has to be a guide to action as well as comprising, existentially, descriptive reality.”<sup>126</sup> If the institution is to retain its legitimacy and relevance, the theory of victory must be strategically practical. This is because “strategy is about what works in the world to bridge the potential chasm between political ends and military agents.” Thus, it follows that a theory of victory can also be contingently useful for any given context.<sup>127</sup> Borrowing from Clausewitz, a theory of victory is not a “positive doctrine, a sort of *manual* for action.”<sup>128</sup> Rather it is a theory in the manner that Clausewitz suggested, which bears quoting here:

Theory exists so that one need not start afresh each time sorting out the material and plowing through it, but will find it ready to hand and in good order. It is meant to educate the mind of the future commander, or, more accurately, to guide him in his self-education, not to accompany him to the battlefield; just as a wise teacher guides and stimulates a young man’s intellectual development, but is careful not to lead him by the hand for the rest of his life.<sup>129</sup>

A military institution’s theory of victory pervades its every action, its ideals, ideas, and behavior, which shape the institution’s structure, strategy, and process. The attentive details of structure and strategy as related to institutions having already been related via Scott’s pillars, we turn now to focus upon the process resultant from a theory of victory. A

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<sup>125</sup> Scott, *Institutions and Organizations*, 79, 82; Walter W. Powell and Paul J. DiMaggio, eds., *The New Institutionalism in Organizational Analysis*, 1 edition (Chicago: University Of Chicago Press, 1991), 22.

<sup>126</sup> Gray, *Modern Strategy*, 144.

<sup>127</sup> Gray, *Modern Strategy*, 144.

<sup>128</sup> Clausewitz, *On War*, 141.

<sup>129</sup> Clausewitz, *On War*, 141.

theory of victory is not simply “out there” waiting to be discovered. Rather, a theory of victory is a tool military institutions use to cope with the inherent uncertainty of the world in which they are expected win. These theories of victory preclude military institutions from approaching any new situation *tabula rasa*. Military institutions, therefore, are socially dependent upon their regulatory and normative imperatives, as well their cultural preferences. Thus, theories of victory are always subject to change: They are altered, modified, and are often combined with other theories of victory as a practical manner of joint warfighting. Furthermore, as a product of institutions that tend to exhibit diffusion, theories of victory are likewise prone to diffusion.<sup>130</sup> Scott suggests such diffusion occurs by way of acquiescence, compromise, avoidance, defiance, and manipulation.

- *Acquiescence* or conformity entails either imitation of other institutions or organizations selected as models for compliance to the demands of cultural, normative, or regulative authorities. Anticipation of enhanced legitimacy, fear of negative sanctions, hope of additional resources, or some mixture of these motives may motivate it.
- *Compromise* incorporates a family of responses that include balancing, placating, and negotiating institutional demands. Compromise is particularly likely to occur in contexts containing conflicting authorities, or perhaps in those situations where an authority fails to direct or enforce the desire for such a strategy.
- The strategy of *avoidance* includes the concealment of efforts and/or attempts to buffer and level parts of the institution from the necessity of conforming to external or environmental requirements. Forecasting is also used in this strategy as a method of advocacy to anticipate and mitigate external or environmental requirements.
- The strategy of *defiance* is one in which institutions not only resist pressures to conform, but do so in a highly public

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<sup>130</sup> Scott, *Institutions and Organizations*, 83, 96, 178.

manner. Defiance is likely to occur when normative imperatives and cultural preferences of an institution diverge substantially from those seeking to impose new requirements upon the institution.

- Finally, institutions may respond to external pressures by attempting to *manipulate* the environment by co-opting, influencing, or asserting and denying control.<sup>131</sup>

Institutions are both products and protagonists in their environments; thus, they respond to the constant changes of the environment through changes in the logic of action within each pillar. Therefore, while theories of victory can change, they change slowly. Because theories of victory are the product of institutional collective rationality, they shape the extant “range of effective choice open to government leaders confronted with any problem.”<sup>132</sup> Furthermore, they “structure the situation within the narrow constraints of which leaders must make their decisions about an issue.”<sup>133</sup>

A military institution’s theory of victory does not attempt to anticipate a specific future in as much as it seeks to mitigate uncertainty by arranging for what Allison and Zelikow refer to as a “negotiated environment,” in which they attempt to maximize their autonomy and normalize the reactions of the influences upon their environment. To do this, military institutions seek to define or redefine military success, highlight required information that accentuates institutional relevance, advocate the adoption of capabilities essential to the institution’s critical tasks or essence, revise norms for the recruitment and tenure of like-minded personnel, and consolidate the reward of increased legitimacy for the institution in future conflicts.<sup>134</sup> As asserted in the introduction, while there is explanatory power in the concept of a theory of victory, it

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<sup>131</sup> Scott, *Institutions and Organizations*, 210–212; Thompson, *Organizations in Action*, 18–23.

<sup>132</sup> Allison and Zelikow, *Essence of Decision*, 164.

<sup>133</sup> Allison and Zelikow, *Essence of Decision*, 164.

<sup>134</sup> Allison and Zelikow, *Essence of Decision*, 170, 167.

also is prudent to be wary of it. Any single theory of victory will lack comprehensiveness in attempting to deal with the “whole house of war.”<sup>135</sup> Therefore, each service-specific theory of victory must be blended in specific contexts to ensure the joint force attains sufficient military effectiveness.

This highlights four interlinking precepts regarding theories of victory: First, there is no single military theory of victory in joint warfare—each service has its own distinctive imperatives and preferences. Second, each service theory of victory is uniquely powerful and pervasive within its own institution. Third, each military service theory of victory exerts considerable influence on national security policy. Finally, the theories of victory of each service shapes its conceptions of how to structure, equip, and fight the nation’s wars.<sup>136</sup> The analysis of subsequent chapters examines how the differing U.S. Army and U.S. Air Force theories of victory shaped their approach to Operation Desert Storm.

## Conclusions

Military institutions are complex entities, and they have many coordinative and adaptive requirements for action in uncertain environments. Nevertheless, the institutional logic of military services can be categorized, connected, and explained in terms of how they shape imperatives and preferences. Certainly, for theories of victory to be understood, intermediate questions must be addressed in terms of *how* rules and norms constrain institutional imperatives, but also in *what* culture does to shape preferences, toward the ideals, ideas, and behavior that explain cumulative institutional logic.

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<sup>135</sup> T.E. Lawrence and Angus Calder, *Seven Pillars of Wisdom* (Ware, Hertfordshire: Wordsworth Editions Ltd., 1997), 90.

<sup>136</sup> Donnithorne, *Culture Wars*, 25.

In sum, there is value in disaggregating these imperatives and preferences because doing so create greater explanatory power than treating the culture of a military institution as a monolith. This is despite, in a proximate sense, military institutions are typically incapable of acting beyond their culture. Thus, while culture may be the dominant pillar, it is not the only influence upon the ideals, ideas, and behavior of the services.

William Martel's construct suggests a theory of victory must identify the critical attributes and tasks of warfare; it must describe the extent to which these attributes and tasks contribute to victory, and assess the relative influence or priority these attributes and tasks have on creating the conditions for victory. Scott's institutional framework applied to the military services is an apt tool for satisfying each of these requirements with a presumptive answer to the questions of how, what, and why military hold the ideals, ideas, and behavior they do (see Figure 5). Whether or not these presumptive answers and how they cooperate and compete with other theories of victory prove sufficient in terms of military effectiveness is a matter of examination on a case-by-case basis. Beyond understanding the distinctive *how*, *what*, and *why* of each service's collective rationality, the institutional framework for military services and their subsequent theories of victory presented here provides another insight into how we can go about answering J.C. Wylie's question as to why a soldier thinks like a soldier, a sailor like a sailor, and an airman like an airman, and so forth. Furthermore, it highlights five strategies military institutions utilize when forced to blend their functional capacities and theories of victory via acquiescence, compromise, avoidance, defiance, and manipulation. This framework allows us to consider historical examples and develop judgments regarding the military effectiveness in the planning and conduct of joint operations.



## **Chapter 3**

### **The U.S. Air Force Theory of Victory in 1990**

This chapter seeks to describe collective rationality of the U.S. Air Force as it stood in 1990 just prior to the Iraqi invasion of Kuwait. The methodology applied here is built upon the application of Scott's institutional framework to develop a collective rationality that addresses all of Martel's requirements for a theory of victory. In so doing, it will analyze each of the pillars of the Air Force to answer the questions of *how* and *why* the institution does what it does to address both its imperatives and preferences. Through this methodology, it will identify the critical attributes and tasks of aerial warfare that create the first requirement of Martel's framework for a theory of victory. It will also describe the extent to which these attributes and tasks contribute to victory. Finally, using Scott's framework, the theory of victory will describe the relative influence or priority of these attributes and tasks in creating the conditions for victory.<sup>1</sup> Ultimately, the imperatives and preferences taken together will emphasize how the collective rationality of the U.S. Air Force, within this specific period and context, is its theory of victory apropos to Operation Desert Storm.

#### **The Air Force's Regulatory Pillar**

The debate over how best to utilize the air weapon began the same year the Wright brothers made their first flight, but this invention did not create the conditions for the debate. While the Wright brothers made their first flight on 17 December 1903, this monumental event was preempted by happenings that created the path for an enduring debate. The establishment of the Joint Army-Navy Board initiated the debate of proper roles, functions, and missions over complementary forms of warfare, which would in time, come to include the air weapon.

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<sup>1</sup> Martel, *Victory in War*, 90.



Established on 17 July 1903, the Joint Board was founded on an agreement between the Secretaries of War and the Navy in response to the poor coordination demonstrated between the two departments in the Spanish-American War, April – December 1898.<sup>2</sup> Previous to the Joint Board, there was no functional capacity for the American military services to cooperate jointly except at the secretariat level.

Ultimately, the Joint Board failed to force effective unity of command. While the horrors of ground combat in World War I contributed to the normative seed-corn of airpower theory, the intent of the Joint Board was largely frustrated during this period because its participants considered its function to be a working group for mutual cooperation. The introduction of the aerial weapon would merely add to the dysfunctional problems of joint integration, as long as efforts to improve the Joint Board's authority remained frustrated.<sup>3</sup> The impotence of the Joint Board would become apparent in the feeble publication of *Joint Action of the Army and the Navy* in 1927, revised in 1935, which was a non-binding effort to avoid duplication in service roles and missions.<sup>4</sup> The disagreements over the independence of airpower would partially be set aside during World War II, partly because

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<sup>2</sup> James R. Locher, *Victory on the Potomac: The Goldwater-Nichols Act Unifies the Pentagon*, New edition, Williams-Ford Texas A&M University Military History Series, Book 79 (College Station: Texas A&M University Press, 2004), 16–17; Antulio J. Echevarria, *Reconsidering the American Way of War: US Military Practice from the Revolution to Afghanistan* (Washington, DC: Georgetown University Press, 2014), 175; "Records of the Joint Board 1903-47," Record Group 225.2, National Archives, accessed April 29, 2015, <http://www.archives.gov/research/guide-fed-records/groups/225.html#225.1>; Lindsey Eilon et al., "Evolution of Department of Defense Directive 5100.01: Functions of the Department of Defense and Its Major Components," White Paper (Washington, D.C.: Office of the Secretary of Defense, February 18, 2014), 4.

<sup>3</sup> Locher, *Victory on the Potomac*, 18–21.

<sup>4</sup> John M. Collins, "Roles and Functions of U.S. Combat Forces: Past, Present, and Prospects," Research Report (Washington D.C.: Congressional Research Service, January 21, 1993), 3; Eilon et al., "Evolution of Department of Defense Directive 5100.01," 4; Locher suggests the "advent of military aviation blurred the distinction between land and sea warfare--the basic organizing principle since the republic's beginning--and signaled the need for adjustments in organization and warfighting concepts," *Victory on the Potomac*, 19.

President Franklin D. Roosevelt specifically dictated unity of command by designating theater commanders for the war effort and several of those commanders gave their assurances for support after the war.<sup>5</sup> Roosevelt also approved a borrowed idea from the United Kingdom to form the Joint Chiefs of Staff (JCS) during this period. However, despite the war effort and the enormous authority delegated to the JCS, direction from the group was limited to consensus rather than by majority approval.<sup>6</sup> With the passing of Roosevelt, the rise of Harry S. Truman to the presidency, and the conclusion of World War II, the debate over proper roles, functions, and missions over complementary forms of warfare came to a head.

At the conclusion of World War II, airpower leaders had established through combat a distinctive normative and cultural-cognitive aspect to their form of warfare. All that was lacking was a regulatory forcing function that would legitimize their distinctive form of warfare from the others. That would come eventually in the form of the *National Security Act of 1947* and its numerous subsequent revisions. The National Security Act provided legal sanction to actions the U.S. Air Force already found sufficiently logical, morally governed, and culturally supported.

The National Security Act of 26 July 1947 established the United States Air Force and codified its responsibilities under the consequence of statute. The regulatory pillar of the U.S. Air Force is built upon those dimensions of the National Security Act that reinforce rule setting; monitoring rule following; and the affirmation of ideals, ideas, and behavior as sanctioned by the national-security apparatus. The Air

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<sup>5</sup> Warren A. Trest, *Air Force Roles and Missions: A History* (Washington D.C.: Air Force History and Museums Program, 1998), 109.

<sup>6</sup> Locher, *Victory on the Potomac*, 18–25. According to Locher, the JCS required unanimous agreement to make wartime decisions. The institutional weaknesses of the JCS to dictate to the services created intense competition and suspicion between the Army and the Navy even while the air service of the Army was furthering autonomy and ultimately, independence.

Force *must* follow and set rules of expedience, and fear coercive outcomes in order to create regulatory order. The Air Force *must* do the things it does because the law and directives force it to by the logic of consequences. In this pillar, the emotions of fear, guilt, and innocence are operative in the judgment of the institution's ideals, ideas, and behavior. In order to examine the institution of the Air Force via the regulatory lens, a basic summary of the regulatory documents is required.

**The National Security Act.** Between 1947 and 1990, the National Security Act was significantly amended or superseded by statute six times – in 1949, 1952, 1958, 1978, 1985, and 1986. The 1949 amendment created the Department of Defense, subordinated the authority of the Secretary of the Air Force to the Secretary of Defense, and formally established the position of the Chairman, Joint Chiefs of Staff. The 1952 amendment to the National Security Act elevated the position of the Commandant of the United States Marine Corps as a member of the Joint Chiefs of Staff, but this position was limited only to considerations related to the Marine Corps.

The 1958 Reorganization Act significantly modified the chain of command by allowing the commanders of the combatant commands to circumvent the military services and communicate to the Secretary of Defense and the President via the Joint Chiefs of Staff. In effect, this change absolved the services of their formal responsibilities to act as both force providers *and* warfighters, although the imprecision of this statutory revision left this distinction somewhat ambiguous. The 1958 reforms further empowered the Secretary of Defense to act as the final arbiter for the entire department in fiscal matters and gave him the authority to stipulate and reassign the responsibilities of the services within the department. Finally, the 1958 Reorganization Act increased the power of the Joint Chiefs of Staff over the military services, increased

the power of unified and specified commanders with the authority for operational control over forces assigned to them. But, the ambiguity of this statute, as well as previous statutes, allowed the military services to retain *de facto* influence over operational matters.<sup>7</sup> In 1978, the Commandant of the Marine Corps was designated as a co-equal member of the Joint Chiefs of Staff. In 1985, the National Defense Authorization Act formally strengthened the responsibilities of the Chairman, Joint Chiefs of Staff to act as the spokesman, rather than simply the conduit, for the combatant commanders on operational requirements.<sup>8</sup>

The Goldwater-Nichols Department of Defense Reorganization Act of 1986 was the most significant reform affecting the Air Force since its establishment in 1947. The Goldwater-Nichols Act unambiguously empowered the Chairman, Joint Chiefs of Staff. The 1986 change also transferred all remaining warfighting functions from the military services to the combatant commanders, and enhanced joint cooperation among the services by giving the combatant commanders full authority over their assigned forces. In each of these revisions to the National Security Act of 1947, the responsibilities of the U.S. Air Force were changed, requiring the formulation of a new sense of regulatory order.<sup>9</sup>

As of August 1990, the National Security Act, Section 208 (f), as amended in Title 10, U.S. Code, Chapter 807, Section 8062. Policy; composition; aircraft authorization, paragraph (c) read:

In general the United States Air Force shall include aviation forces both combat and service not otherwise assigned [to the United States Army, Navy, and Marine Corps]. It shall be organized, trained, and equipped primarily for prompt and sustained offensive and defensive air operations. The Air

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<sup>7</sup> Collins, "Roles and Functions of U.S. Combat Forces," 1; Eilon et al., "Evolution of Department of Defense Directive 5100.01," 7–21.

<sup>8</sup> Eilon et al., "Evolution of Department of Defense Directive 5100.01," 16, 20.

<sup>9</sup> Eilon et al., "Evolution of Department of Defense Directive 5100.01," 18–21; Trest, *Air Force Roles and Missions*, 235–245.

Force shall be responsible for the preparation of the air forces necessary for the effective prosecution of war except as otherwise assigned and, in accordance with integrated joint mobilization plans, for the expansion of peacetime components of the Air Force to meet the needs of war.<sup>10</sup>

This statute outlines what is sometimes referred to as the roles of the Air Force, but Congress later would refer to them as “combatant functions.” The National Security Act, in conjunction with annual National Defense Authorization statutes, fulfills the requirements of the James Q. Wilson’s Procedural Organization mold. Within which, Congress can measure the Air Force’s compliance with law on the bases of authorized force structure, doctrine, and activities. This peacetime activity lends itself to preparation for transition to wartime in what Wilson describes the military services as Craft Organizations, where the direction and outcome of military action is hardly limited to regulatory obligation. In short, the National Security Act, as amended, establishes the Air Force’s *raison d’être* on regulatory grounds, from which the service derives its formal authority and part of its institutional essence. But while these functions enumerated by statute are specific, they are not exhaustive. Thus, one must further address statutory ambiguity because it creates an inherent tension between the responsibilities of the military services. The functions and responsibilities of the Air Force are not dictated by statute alone, but also by Department of Defense directives.<sup>11</sup>

**DOD Directive 5100.01.** Department of Defense Directive (DODD) 5100.1 is the regulatory descendant of the Key West Agreement of 21 April 1948 and the 21 August 1948 Newport Agreement among the

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<sup>10</sup> 80th Congress; Chapter 343, 1st Session; S. 758, “The National Security Act of 1947: Public Law 253,” July 26, 1947, 11; As quoted in Annex F, Current Roles and Functions of John M. Collins, *Roles and Functions of U.S. Combat Forces: Past, Present, and Prospects*, Research Report (Washington D.C.: Congressional Research Service, January 21, 1993), 98.

<sup>11</sup> James H. Kurtz and John H. Crerar, “Military Roles and Missions: Past Revisions and Future Prospects” (Alexandria, VA: Institute for Defense Analyses, March 2009), 13–16.

chiefs of the military services. While agreements were common among the services, until they were incorporated into directives, they lacked the authority and the power of consequential sanction under the authority of the Secretary of Defense. Thus, it was necessary to enforce the Key West Agreement under Executive Order 9950, “Functions of the Armed Forces and the Joint Chiefs of Staff.”<sup>12</sup> By the authority of the President, Executive Order 9950 provided the Secretary of the Defense a marginal increase in power to broker and delineate the functions of the military services until the National Security Act Amendments of 1949 superseded his delegated executive authority in favor of statutory authority.<sup>13</sup> First issued in 1954, DODD 5100.1 provided markedly less ambiguity over the sanction of roles, missions, and functions of the military services. Formally, the directive defined primary functions for the services as an “exclusive responsibility” with “programming and the necessary authority,” while also precluding incidental interference from other services that had similar secondary functions.<sup>14</sup> In the period between 1954 and 1990, DODD 5100.1 was reissued or revised ten times. The most significant revisions occurred because of the Department of Defense Reorganization Act of 1958 and the Goldwater-Nichols Department of Defense Reorganization Act of 1986.

One thread woven throughout many of the revisions of DODD 5100.1 was improvement of joint unity of command. The 1958 revision of DODD 5100.1 (subsequently referred to as 5100.01) clarified the Department of Defense’s application of the Reorganization Act of 1958 by simplifying the operational chain of command and role of the Joint Chiefs of Staff. In the revision in June of 1966, DODD 5100.01

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<sup>12</sup> Eilon et al., “Evolution of Department of Defense Directive 5100.01,” 9.

<sup>13</sup> John Norton Moore and Robert F. Turner, “The Legal Structure of Defense Organization,” Memorandum Report, Memorandum Prepared for the President’s Blue Ribbon Commission on Defense Management (Charlottesville, VA: University of Virginia Center for Law and National Security, January 15, 1986), 17–19.

<sup>14</sup> Eilon et al., “Evolution of Department of Defense Directive 5100.01,” 9.



considerably expanded the roles of subordinate agencies to the Department of Defense and most significantly made the Joint Chiefs of Staff responsible for the provision of guidance to these subordinate agencies. The June 1969 revision to DODD 5100.01 again reinforced the responsibilities of the Joint Chiefs of Staff to review logistic guidance, while granting actual authority for logistics to the services themselves. However, it also directed the military services to recommend such guidance as appropriate to the function of their departments to the Joint Chiefs.

The March 1977 revision to DODD 5100.01 made only cursory changes to the titles and nomenclature of subordinate agencies to the Department of Defense. In the May 1985 revision, DODD 5100.01 reiterated the spokesman role of the Chairman, Joint Chiefs of Staff on behalf of the Commanders of the Combatant Commands on issues of operational requirement. The January 1986 revision provided each Military Service with equal responsibility for space operations, and reflecting each service's growing dependence upon the space domain included space operations within the primary functions of each.

Finally, the April 1987 revision to DODD 5100.01 reflected the substantial changes brought about by Goldwater-Nichols. It clarified how an empowered Chairman, Joint Chiefs of Staff, would perform the duties as the principal military advisor to the President and Secretary of Defense, but also illuminated how the Vice Chairman of the Joint Chiefs of Staff and their Joint Staff would serve at the direction of the Chairman. This April 1987 revision also incorporated clarification to statute changes that created Special Operations Command as a result of the Nunn-Cohen Amendment to the National Defense Authorization Act of 1987. Finally, and most importantly, this revision sought to clarify any "lengthy or vague language found in the [Goldwater-Nichols]

legislation,” in particular, on how to “improve efficiency between Services.”<sup>15</sup>

As of August 1990, Department of Defense Directive 5100.01, as enacted on September 25, 1987, prior to Operation Desert Storm stated:

- (2) The primary functions of the Air Force include:
  - (a) To organize, train, equip, and provide forces for the conduct of prompt and sustained combat operations in the air—specifically, forces to defend the United States against air attack in accordance with doctrines established by the [Joint Chiefs of Staff], gain and maintain general air supremacy, defeat enemy air forces, conduct space operations, control vital air areas, and establish local air superiority except as
  - (c) To organize, train, equip, and provide forces for strategic air and missile warfare.
  - (e) To organize, train, equip, and provide forces for close air support and air logistic support to the Army and other forces, as directed, including airlift, air support, resupply of airborne operations, aerial photography, tactical air reconnaissance, and air interdiction of enemy land forces and communications.<sup>16</sup>
- (5) Other responsibilities of the Air Force include:
  - (c) With respect to close air support of ground forces, the Air Force has specific responsibility for developing, in coordination with the other Services, doctrines and procedures, except as provided for in Navy responsibilities for amphibious operations and in responsibilities for the Marine Corps.<sup>17</sup>

The ten revisions of DODD 5100.01, which found its formative roots in the Key West Agreement and subsequently absorbed other interservice agreements, consistently focused upon achieving a balance between joint economy of force and expertise in each functional area of warfare delegated to the military services. Seven of the ten disputes

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<sup>15</sup> Eilon et al., “Evolution of Department of Defense Directive 5100.01,” 21.

<sup>16</sup> Collins, “Roles and Functions of U.S. Combat Forces,” 98–99.

<sup>17</sup> Collins, “Roles and Functions of U.S. Combat Forces,” 100.

resolved by DODD 5100.01 were between the Army and the Air Force, one on the military use of space and six different revisions regarding air support of land warfare.<sup>18</sup> These disputes were more than simply interservice rivalry gone badly, which in some cases is the most appropriate description, but they also reflected a groping through the formulation of a regulative basis in the joint blending of various forms of warfare. Determining the roles, functions, and missions of the Air Force resulted in what J.C. Wylie described as an “almost constant pullings and haulings among the services,” particularly between the Air Force and the Army.

Much of the formal codification of DODD 5100.01 originated in interservice agreements, the resolution of which ultimately required a formal coercive forcing function either by statute and external directive. All too often agreements made between the Army and the Air Force resulted in shirking if not outright subversion. The most significant example of U.S. Air Force shirking occurred as result of a March 1946 agreement between the Commanding General of the Army Air Forces, General Carl Spaatz, and Chief of Staff of the Army, General Dwight D. Eisenhower. In the agreement, Spaatz promised Eisenhower the Army would always have tactical air support from an independent Air Force. In order assuage Eisenhower’s concerns and garner his support for independence, Spaatz proposed organizing the presumptively independent U.S. Air Force into Strategic Air Command (SAC), Tactical Air Command (TAC), and Air Defense Command (ADC), where TAC would be the primary command responsible for developing and exercising air support for the U.S. Army.<sup>19</sup> However, after the Air Force obtained independence, General Hoyt S. Vandenberg stripped TAC of its forces in December 1948 after succeeding Spaatz as the Air Force Chief of Staff.

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<sup>18</sup> Kurtz and Crerar, “Military Roles and Missions,” 25.

<sup>19</sup> Trest, *Air Force Roles and Missions*, 114.

This action was justified at the time by President Harry Truman's extensive budget cuts for the military and the Air Force's normative prioritization of the nuclear deterrence mission. The stripping of TAC's forces indicated to the U.S. Army that the tactical air missions in which it had come to rely upon from the U.S. Air Force were being snubbed in favor of the strategic missions in SAC and would have a lasting impact on interservice relations with the U.S. Army, even through present day.<sup>20</sup>

General Elwood "Pete" Quesada, the commander of Tactical Air Command at the time, felt the changes broke the promise Spaatz made to Eisenhower in 1946 to garner independence, and Spaatz, for his part, was also incensed about the decision.<sup>21</sup> This highlights the extant limits of interservice agreements, as this controversial decision occurred even after the U.S. Air Force agreed to "furnish close combat and logistical air support to the Army" in the Key West Agreement not eight months previous to the emasculation of the U.S. Air Force command that was primarily responsible for keeping the agreement.<sup>22</sup> Ultimately, TAC would not be rehabilitated until the Korean War, and this was because of the authority provided to the Secretary of Defense in the 1958 Department of Defense Reorganization Act to stipulate *and enforce* service functions via DOD Directive 5100.01.<sup>23</sup>

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<sup>20</sup> Alfred Goldberg, ed., *A History of the United States Air Force, 1907-1957* (Princeton, NJ: D. Can Nostrand Company, 1957), 139-140; Trest, *Air Force Roles and Missions*, 136. Regarding the lasting damage and distrust resultant from this decision, see Conrad C. Crane, *American Airpower Strategy in Korea, 1950-1953*, Modern War Studies (Lawrence, KS: University Press of Kansas, 2000); Donald J. Mrozek, *Airpower and the Ground War in Vietnam*. (Maxwell AFB, AL: Air University Press, 1988); Ian Horwood, *Interservice Rivalry and Airpower in the Vietnam War* (Fort Leavenworth, Kansas: Combat Studies Institute Press, 2006).

<sup>21</sup> John L. Frisbee, *Makers of the United States Air Force*, 1st Edition, Air Force History and Museums Program (Washington D.C.: Office of Air Force History, U.S. Air Force, 1987), 202.

<sup>22</sup> Richard I. Wolf, *The United States Air Force Basic Documents on Roles and Missions* (Washington, D.C: Office of Air Force History, U.S. Air Force, 1987), 163.

<sup>23</sup> Frisbee, *Makers of the United States Air Force*, 219.

To recapitulate, while interservice agreements highlight important normative developments in joint warfighting, as a method for forcing services to do what they promise agreements merely serve as shibboleth. Furthermore, the Air Force is neither exceptional nor alone in their shirking or subversion of interservice agreements. For example, the U.S. Army, as many in the Air Force would later argue, shirked and subverted the restraints of the 1966 McConnell-Johnson agreement regarding close combat attack and air mobility in response to Secretary of Defense McNamara's obvious decision to not enforce DOD Directive 5160.22. The vitriol over the rotary-wing attack and air mobility missions, and the claimed redundancy of air forces between the Army and the Air Force occurred resultant to the lack of force perceived within DOD Directive 5160.22.<sup>24</sup> Clearly then, agreements have no force for consequences, and once codified in either a binding statute or directive each service can only resort in more subtle forms of shirking *if the statute or directive is enforced by the principal*.<sup>25</sup>

Borrowing from Wilson, statutes and directives have a compellent sense of consequence that mere agreements cannot provide because "government agencies must serve goals not of the organizations own choosing."<sup>26</sup> These may be areas where a service can shirk, but subverting or ignoring these functions would be met with punishment commiserate with the precision in which the function is defined. Within the regulatory pillar, the obligation of an institution is tied directly to the precision in which external parties can prove shirking and subversion. As the logic of consequences goes for the military services, the fear of

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<sup>24</sup> Trest, *Air Force Roles and Missions*, 192–194, 197–198, 210–212, 234; Horwood, *Interservice Rivalry and Airpower in the Vietnam War*, 103–137; Robert Frank Futrell, *Ideas, Concepts, Doctrine (Volume II): Basic Thinking in the United States Air Force 1961–1984*, vol. 2 (Maxwell AFB: AU Press, 1989), 516–531.

<sup>25</sup> Secretary of Defense McNamara made it known he would not enforce DODD 5160.22 well before it was rescinded in 1970, thus the Army treated it as it was defunct, which lead to the claims of shirking and subversion from Air Force members.

<sup>26</sup> Scott, *Institutions and Organizations*, 60; Wilson, *Bureaucracy*, 115.

punishment is commensurate with the precision of the forcing function. The National Security Act, as a statute, had to be sufficiently broad to account for unforeseen situations in the future. Therefore, the statute has a considerable amount of ambiguity as written regarding the functions of the military services, particularly in how the obligations of these functions are measured. On the other hand, DODD 5100.01 improves upon the relative precision of the consequences of military shirking, but only to a point, as there will always be some imprecision even in directives. Both the National Security Act and DODD 5100.01 provide a legal basis that cannot be avoided by the Air Force, or the other military services, even if these documents will retain certain inherent ambiguities that makes some extent of shirking possible.<sup>27</sup>

In the formulation of the Air Force logic of collective action, which is in part informed by the logic of consequences, the air service *must* provide *sufficient* effort toward air combat operations; strategic air operations; and support of the Army in close air support, logistics, airlift, resupply, aerial reconnaissance, and interdiction. The Air Force must act as the agent in a principal-agent problem; but who, precisely is the principal? Given that support of the Army is a *primary* function for the Air Force, it might be assumed the Army is the principal. However, an essential requirement of a principal, according to Peter Feaver, is the ability to exert control over an agent to the extent they may also punish them.<sup>28</sup> In short, the principal in a principal-agent relationship must have the ability to punish the agent for shirking (or worse subverting)

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<sup>27</sup> Daniel T. Kuehl and Charles E. Miller, "Roles, Missions, and Functions: Terms of Debate," *Joint Force Quarterly* 5 (Summer 1994): 103, 105.

<sup>28</sup> Feaver, *Armed Servants*, 1–4, 12–14, 57–58, 60–61, 89–90. Feaver suggests there are grounds to critique his rational approach, which leans significantly upon a logic of consequences. These critiques include the other pillars of Scott's framework from both a normative and cultural perspective. Feaver states, "I would expect that an important critique of the argument developed in this book could come from the bounded rationality approach, such as the 'logic of appropriateness,' as developed in March 1978, or 'ritualized behavior' as developed in Scott and Meyer 1983" (13).



their obligations. It is insufficient and illogical a mere monitor, as is the case of the Army measuring the Air Force's fulfillment of one of its primary functions, has the necessary power to control *and* punish a sister-service department. Lacking sufficient ability to do either eliminates the Army from serving as the principal to the Air Force, which is another significant shortfall of interservice agreements. In sum, civilians in both the Executive and Legislative branches of government are the principals in the principal-agent contract that enforces the Air Force's obligation to provide support to the Army because the Army cannot act in this role itself.<sup>29</sup>

Ultimately, the Air Force has a legal obligation to perform its functions as dictated by both statute and directive. The consequences of shirking or subverting these obligations can result in punishment. As noted previously, there are several ways punishment might result from shirking or subverting. First, institutional autonomy can be placed at risk by imposing a monitoring arrangement. Second, financial constraints can be levied upon the Air Force for not meeting its obligations. Third, institutional leaders can be dismissed. Fourth, although it might be reserved for extreme circumstances, prosecution is a possibility. Finally, extra-legal action such as public rebukes and personnel purges can be utilized. Yet, despite all these possible consequences that might result from a determination of whether or not the Air Force meets its obligations, the imperatives formed by the logic of consequences is silent on the *priority* of functions that might compete under limited resources. Therefore, the logic of consequences is insufficient on its own in the development of an Air Force theory of

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<sup>29</sup> Feaver leaves open the question of *which* civilians retain the greater authority of principal to the military services when he states: "Debate continues as to whether Congress or the president is the most influential in exercising political control [over the military services.]" (55) In either case, control provided by dictating roles, functions, and missions in both legislative statute and executive directives covers all possibilities.

victory; thus, consideration must be extended to determining how the Air Force decides what is most appropriate under various contexts.

### **The Air Force's Normative Pillar**

The U.S. Air Force's normative pillar is built on an imperative for action derived from a role appropriate for an air arm within the national security apparatus. The Air Force must fulfill this role because of the functional imperative of professionalism, which is a socially constructed order on the basis of binding expectation. The Air Force *must* do the things it does because doctrine and theory is commanded by the logic of appropriateness applied to specific contexts. In the normative pillar, the emotions of shame and honor are operative in the judgment of the Air Force's professional ideals, ideas, and behavior; and are thus morally governed by "social contract" in a principal-agent relationship between the institution as agent and the nation as the principal. In order to examine the institution of the Air Force via the normative lens, a basic review of service doctrine is apt.

Doctrine provides insight into an institution's normative pillar because it is a codification of appropriate institutional ideals, ideas, and behavior applied to generic situations. Doctrine makes explicit what means *shall* be employed and *how* those means should be employed. According to Barry Posen, doctrine provides a basis of insight into a military institution because it reflects the judgment of professional officers and their civilian leaders. Ideally it captures not only what is feasible, but also appropriate within a range of scenarios.<sup>30</sup> Furthermore, doctrine highlights what James Q. Wilson suggests is the "standard operating procedure" of an institution.<sup>31</sup> Because doctrine is the codification of the essence of an institution, it is a vital element of the Air Force's theory of victory.

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<sup>30</sup> Posen, *The Sources of Military Doctrine*, 13–14.

<sup>31</sup> Wilson, *Bureaucracy*, 221.

In the build up and planning for Operation Desert Storm in late 1990 to early 1991, Air Force doctrine was officially expressed in Air Force Manual (AFM) 1-1, *Basic Aerospace Doctrine of the USAF* (16 March 1984), and Air Force Manual (AFM) 2-1, *Tactical Air Operations: Counter Air, Close Air Support, and Air Interdiction* (2 May 1969). Both documents are interesting artifacts given the time between their publication and their application to the planning and conduct of Operation Desert Storm, which were almost seven years and twenty-two years respectively. This created a gap in the normative expression of institutional ideals, ideas, and behavior that had to be addressed in practice. The filler for this gap may be thought of as sub rosa doctrine in books, articles, conferences, etc. Said differently, sub rosa doctrine is informal doctrine. William Reese describes the rise of sub rosa doctrine during this period as follows:

Due to the mismatch between the rapid speed of contextual change and the slower pace of doctrinal development, there will almost always be a [gap] between published doctrine and reality. In the case of AFM 2-1, this [gap] grew quickly; by the late 1970s, the document was already largely irrelevant. However, USAF institutional practice on theater level operations continued to evolve in response to contextual change. As the [gap] between published doctrinal guidance and operational reality grew, a body of “informal doctrine” developed which was gleaned from a variety of sources: daily experience with new airpower technologies, ideas advocated by other services, new joint doctrine concepts, and opinions of “visionary” USAF officers.<sup>32</sup>

Additionally, Reese adds,

Formal doctrine will always be “wrong” to some extent because it will always lag contextual change; “informal doctrine” can compensate for this problem by helping “fine-tune” the guidance provided in formal doctrine. Ideally, formal doctrine should be updated frequently enough to ensure that there is little difference between formal and

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<sup>32</sup> William G. Reese, “The Doctrine Gap: The 27 Year Wait for a New Air Force Operational Doctrine Document” (Thesis, Air University, 1996), 7.

informal doctrine. However, if a doctrine development process is *unresponsive*, i.e., it is not successful in producing published doctrine on a timely basis, the [gap] between published doctrine and institutional practice (the expression of informal doctrine) may grow.<sup>33</sup>

There are trade-offs to consider to compensate for the over-reliance on sub rosa doctrine. Informal doctrine has the advantage in timeliness because from a normative standpoint it will normally be a better match between recognition of a generic situation in doctrine to the existing context.<sup>34</sup> As noted in the previous chapter, March and Simon suggest the recognition of a familiar situation lends itself to a logical and appropriate response. The affective aspects of appropriateness play out in the recognition of the context in which one finds themselves: What kind of situation is this? How should the organization interpret the present context?<sup>35</sup> For an institution to play its proper role in a given situation, it first must understand “the kind of war on which [it is] embarking.”<sup>36</sup>

However, reliance upon sub rosa doctrine also has institutional risks. First, it may lack completeness and uniform acceptance throughout the institution. Second, it can also rapidly fold under its own weight as result of poor consideration to the second- and third-order effects in institutional expression of ideals, ideas, and behavior.<sup>37</sup> To formulate the normative pillar of the Air Force circa the fall of 1990, this thesis will rely upon AFM 1-1 (16 March 1984) while dismissing AFM 2-1 (2 May 1969) on the basis of its dated relevance. It will also consider John Warden’s *The Air Campaign* as an exemplar of sub rosa doctrine.

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<sup>33</sup> Reese, “The Doctrine Gap,” 13.

<sup>34</sup> Reese, “The Doctrine Gap,” 14.

<sup>35</sup> March and Simon, *Organizations*, 8; Allison and Zelikow, *Essence of Decision*, 146; March, *Primer on Decision Making*, 57–59.

<sup>36</sup> Clausewitz, *On War*, 88.

<sup>37</sup> Reese, “The Doctrine Gap,” 14.

**Air Force Manual 1-1.** The 1984 edition of AFM 1-1 was crafted on the basis that the capstone airpower doctrine is subordinate to a general doctrine of war. Dennis Drew referred to this partial form of doctrine as “organizational doctrine” and “environmental doctrine,” where it reflected the best insight of an Air Force in the former, but also airpower in the latter. AFM 1-1 also benefited from the improved alignment of significant doctrinal differences between the Air Force and the Army via the “31 Initiatives,” a joint cooperative effort under the Air Force and Army Chiefs of Staff.<sup>38</sup> Most importantly, AFM 1-1 allowed for a broad application of airpower in 1990 when the planning for Operation Desert Storm began, which accommodated both independent air operations but also flexibly allowed for the use of airpower in support of other forms of warfare.<sup>39</sup> Importantly, AFM 1-1 informed the air component commander on whether independent action or support to the other military services was appropriate depending upon the political and national military objectives placed upon them. “To accomplish national military objectives, our military forces train to fight as an interdependent team of land, naval, and aerospace forces,” AFM 1-1 stated, and the “doctrine of unified action describes how US military forces are integrated and employed with unity of effort through specified and unified combatant commands.”<sup>40</sup> Later AFM 1-1 stated, “An air commander adjusts his plan to meet the requirements peculiar to a military action, but his guiding principle is to employ aerospace power as an indivisible entity based on objectives, threats, and opportunities.”<sup>41</sup>

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<sup>38</sup> Futrell, *Ideas, Concepts, Doctrine (Volume II)*, 2:743–744; Wolf, *The United States Air Force Basic Documents on Roles and Missions*, 413–423.

<sup>39</sup> Edward C. Mann, *Thunder and Lightning: Desert Storm and the Airpower Debates* (Maxwell Air Force Base, AL: Air University Press, 1995), 21; “Air Force Manual (AFM) 1-1: Basic Aerospace Doctrine of the United States Air Force” (Headquarters, Department of the Air Force, March 16, 1984), 2–11 through 2–15, 3–2 through 3–8, <http://hdl.handle.net/2027/uiug.30112104101164>.

<sup>40</sup> “Air Force Manual (AFM) 1-1,” 1–3.

<sup>41</sup> “Air Force Manual (AFM) 1-1,” 2–10.

AFM 1-1 listed six capabilities of aerospace forces: responsive, mobile, survivable, presence, observation, and destructive firepower. While AFM 1-1 made it clear airpower is not wholly limited to its destructive capability, as a warfighting doctrine it repeatedly reinforces and prominently discusses the destructive uses of airpower:

- Aerospace forces can deliver destructive firepower worldwide. The shock effect inherent in aerospace power is the product of an unequalled capacity to concentrate combat power in time and space.<sup>42</sup>
- Aerospace forces have the power to penetrate to the heart of an enemy's strength without first defeating defending forces in detail.<sup>43</sup>
- Concentrated firepower can overwhelm enemy defenses and secure [by destruction] an objective at the right time and place. Because of their characteristics and capabilities, aerospace forces possess the ability to concentrate enormous decisive striking power upon selected targets when and where it is needed most.... Expending excessive efforts on secondary objectives would tend to dissipate the strength of aerospace forces and possibly render them incapable of achieving the primary objective.<sup>44</sup>
- Strategic actions produce effects and influences which serve the needs of the overall war effort; tactical actions produce effects on the field of battle.... Strategic actions normally involve attacks against the vital elements of an enemy's war sustaining capabilities and his will to wage war. Tactical actions are battle-related and normally urgent actions conducted against an enemy's massed or deployed forces, his lines of communication, and his command and control structures used to employ forces.<sup>45</sup>
- Attacking an enemy's warfighting potential includes actions against the will of an enemy and actions to

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<sup>42</sup> "Air Force Manual (AFM) 1-1," 2-4.

<sup>43</sup> "Air Force Manual (AFM) 1-1," 2-6.

<sup>44</sup> "Air Force Manual (AFM) 1-1," 2-7.

<sup>45</sup> "Air Force Manual (AFM) 1-1," 2-11.



deny him the time and space to employ his forces effectively. This involves coordinated attacks against an enemy's warfighting potential not yet engaged and attacks against an enemy's forces in contact.... Integrated strategic and tactical actions produce a cumulative effect on the enemy's ability to wage war.<sup>46</sup>

- Regardless of an enemy's will to fight on the field of battle, the stresses imposed by persistent and coordinated attacks and the lack of needed logistics and command guidance can make it physically and psychologically difficult, if not unfeasible, to remain effective on the battlefield. Neutralizing or destroying rear echelon targets will generate stresses and strains on the enemy by limiting his mobility, disrupting his scheme of operation, and depleting his resources.<sup>47</sup>

This destructive theme throughout AFM 1-1 formed an argument for how airpower could be used to coerce the enemy toward our will. This theme framed the mindset of the air commander arguably, upon what James Kiras refers to as "a strategy of choices."<sup>48</sup> Deciding which choices will then be taken, or alternatively rejected, and how to prioritize those choices in a given context becomes consequential. Here the air commander must rely upon the unity of command, mass, and economy of force so as "to ensure that airpower is not frittered away by dividing it."<sup>49</sup> Furthermore, formulating the proper judgment over choices of how and where to use the destructive means of airpower is of particular importance to AFM 1-1 where the air commander must:

- [Orchestrate] the overall air effort to achieve stated objectives. Effective leadership through unity of command produces a unified air effort that can deliver decisive blows against an enemy, dissipate his strengths, and exploit his weaknesses. The air commander, as the central authority for the air effort, develops strategies and plans, determines priorities,

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<sup>46</sup> "Air Force Manual (AFM) 1-1," 2-13.

<sup>47</sup> "Air Force Manual (AFM) 1-1," 2-13, 2-14.

<sup>48</sup> James D. Kiras, *Special Operations and Strategy: From World War II to the War on Terrorism* (New York, N.Y.: Routledge, 2006), 66.

<sup>49</sup> General William W. Momyer, as quoted in "Air Force Manual (AFM) 1-1," 4-2.

allocates resources, and controls assigned aerospace forces to achieve the primary objective;<sup>50</sup> and,

- An air commander's broad plan will normally include offensive strategic and tactical actions which [sic] are designed to control the aerospace environment and neutralize or destroy the warfighting potential of an enemy.<sup>51</sup>

Kiras suggests any strategy that must concentrate effort on a set of priorities for destruction is a method reliant upon "material struggle" and uses attrition "to wear down an opponent *morally* and *materially* so that they abandon the struggle."<sup>52</sup> Attrition, according to Hans Delbrück, requires a subjective judgment in choices "because at no time are all circumstances and conditions, especially what is going on in the enemy camp, known completely and authoritatively."<sup>53</sup> Delbrück's *Ermattungsstrategie*, which is literally translated as "strategy of exhaustion," forms a duality of meaning with both attrition and exhaustion, where attrition is best considered as the destruction of an opponent's physical capacity to resist and exhaustion is best considered as the erosion of the adversary's will to resist.<sup>54</sup> AFM 1-1 aims to accomplish both, however, with morale exhaustion as the objective of airpower and the physical destruction of adversary forces airpower's object.<sup>55</sup> Where, the distinction and relationship between the objective and object here are the same as J.F.C. Fuller suggested, "The object is

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<sup>50</sup> "Air Force Manual (AFM) 1-1," 2-8.

<sup>51</sup> "Air Force Manual (AFM) 1-1," 2-10, 2-11.

<sup>52</sup> Kiras, *Special Operations and Strategy*, 62, 66.

<sup>53</sup> As quoted in Gordon Alexander Craig, "Delbrück: The Military Historian," in *Makers of Modern Strategy: From Machiavelli to the Nuclear Age*, ed. Peter Paret (Princeton, N.J.: Princeton University Press, 1986), 342.

<sup>54</sup> Echevarria, *Reconsidering the American Way of War*, 50.

<sup>55</sup> Wylie, *Military Strategy*, 40-41. This point is indebted to discussions with Nicholas Prime over J.C. Wylie's theory of control, and the airman's view that typically equates destruction or the threat of destruction with control. The airman as a strategist must indeed ponder deeply what Wylie observes as a problem of the air theory of control: "What kind of control is desired, and under what circumstances will destruction or the threat of destruction bring about the desired measure of control? Judgments of this kind are among the most difficult and speculative of all the problems of strategy."

our intention, and the objective is gained when our intention is fulfilled.”<sup>56</sup> Where, AFM 1-1 assumes that the cause of morale exhaustion (the objective) is the physical destruction (the object) of attrition.<sup>57</sup>

In sum, the 1984 AFM 1-1 codified the long-standing Air Force convention that associated the destruction of an adversary’s capabilities as equivalent or directly related to destroying its will to fight.<sup>58</sup> However, given the time gap in doctrine between 1984 and 1990, and the substantial changes in operational art during this period, sub rosa doctrine grew in great importance to fill this gap. It is within this gap that John Warden’s *The Air Campaign* fit as an influential exemplar of informal doctrine.

***The Air Campaign.*** John Warden wrote the initial drafts of *The Air Campaign* as a student at National War College in 1986. Warden’s purpose for *The Air Campaign* was to serve as a prescriptive framework for translating political and national objectives appropriately into the air domain. John Andreas Olson suggests the book focused primarily upon *how* and *why* airpower can accomplish military objectives, but also

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<sup>56</sup> J. F. C. Fuller, *The Foundations of the Science of War* (London: Hutchinson & Co., 1926), 327.

<sup>57</sup> Another theorist of note who considers airpower as biased toward attrition is Robert Pape. Pape constructs two different strategies of attrition in punishment and denial, where “Punishment threatens to inflict costs heavier than the value of anything the challenger could gain, and denial threatens to defeat the adventure, so that the challenger gains nothing but must still suffer the costs of conflict.” Robert A. Pape, *Bombing to Win: Air Power and Coercion in War* (Ithaca, N.Y.: Cornell University Press, 1996), 7; Similarly, Daniel Byman, Matthew Waxman, and Eric V. Larson rely upon attrition by suggesting “A denial strategy at times blurs with ‘brute force;’ both usually seek to defeat an adversary’s military, but ‘denial’ focuses on convincing an adversary that future benefits will not be gained through military means, whereas more conventional warfighting focuses on physically stopping an adversary regardless of whether its leadership believes it can fight on.” *Air Power as a Coercive Instrument*, Project AIR FORCE (Santa Monica, CA: RAND Corporation, 1999), 37, [http://www.rand.org/pubs/monograph\\_reports/MR1061.html](http://www.rand.org/pubs/monograph_reports/MR1061.html).

<sup>58</sup> Kurt A. Cichowski, “Aerospace Doctrine Matures Through a Storm: An Analysis of the New AFM 1-1” (Thesis, Air University, 1993), 18.

sought to expand operational art to aerial warfare.<sup>59</sup> In its own words, “*The Air Campaign* is, very simply, a philosophical and theoretical framework for conceptualizing, planning, and executing an air campaign.”<sup>60</sup> The U.S. Army broached the subject of operational art in its 1982 and further developed it in the 1986 editions of Field Manual (FM) 100-5, and *The Air Campaign* sought to make operational art more accessible to airmen.

While AFM 1-1 makes only brief mention of the operational level of war in its preface, it did not adequately bridge the gap between strategy and tactics.<sup>61</sup> *The Air Campaign*, however, filled this gap in Air Force doctrinal development.<sup>62</sup> Warden states, “Many current problems over the uses of the various Armed Services stem from a lack of coherent doctrine on how they should be used individually and collectively in an operational campaign to secure some strategic end. This book is an attempt to fill that gap and to provide a framework for planning and executing air campaigns at the operational level.”<sup>63</sup>

Important to Warden’s framework was the determination of the adversary’s centers of gravity, where “the selection of a proper center of gravity against which to direct one’s efforts is crucial,” and was perhaps “the most important responsibility of a commander.”<sup>64</sup> Warden borrowed the pithy conceptualization of the center of gravity in *The Air Campaign*

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<sup>59</sup> John Andreas Olsen, *John Warden and the Renaissance of American Air Power*, 1st ed (Washington, D.C: Potomac Books, 2007), 64, 65.

<sup>60</sup> John Warden III, *The Air Campaign*, Revised edition (San Jose, CA: iUniverse, 1998), xv.

<sup>61</sup> “Air Force Manual (AFM) 1-1,” v–vi; Diane Putney, *Airpower Advantage: Planning the Gulf War Air Campaign 1989-1991* (Washington D.C.: Air Force History and Museums Program, 2004), 37, 392n23.

<sup>62</sup> *The Air Campaign*, along with numerous articles, speeches, and other publications, would continue to fill this theoretical gap in Air Force thinking and official doctrine until the 1992 issuance of Air Force Manual 1-1 specifically addressed this breach in doctrinal development. To be sure, *The Air Campaign* served as a gap-filler to what can arguably be judged as an ineffectual doctrine development process in the U.S. Air Force.

<sup>63</sup> Warden III, *The Air Campaign*, 3.

<sup>64</sup> Warden III, *The Air Campaign*, 34, 7.

from Carl von Clausewitz.<sup>65</sup> Warden's application of Clausewitz's center of gravity would largely form the normative basis of the Air Force view on the subject and would also be framed in terms of destruction.<sup>66</sup> To be clear, Warden's view of centers of gravity in *The Air Campaign* was focused on "striking decisive blows," and thus made it obvious destruction of these centers of gravity was a major aspect of his framework.<sup>67</sup> Furthermore, Warden acknowledges the strength of one's capabilities to destroy centers of gravity determined the importance of selecting them correctly among a variety of choices:

If the commander has overwhelming superiority in numbers, he perhaps can afford to target virtually every part of the enemy's air system, knowing that he will get the job done eventually. With enough numerical superiority, this approach is bound to work (although it may cost far more than necessary and may take an inordinate amount of time). As the offensive commander's degree of superiority moves to equality, and finally to inferiority, the necessity for an accurate assessment of the enemy's center of gravity becomes more crucial. Indeed, if the offense is inferior in numbers, only one course of action may lead to victory. If the commander makes the wrong choice, he may not have another opportunity to win air superiority.<sup>68</sup>

Warden's view of the center of gravity is clearly reliant upon "a strategy of choices," which is an indication of a framework set upon attrition.<sup>69</sup> Beyond even the indication of choice, which infers a matter of

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<sup>65</sup> Warden III, *The Air Campaign*, 9.

<sup>66</sup> Warden III, *The Air Campaign*, 112–113. In this manner, Warden focuses on three methods for achieving military objectives nested underneath political objectives, which would become the basis of his "Five Rings" and referred to at this nascent stage as an "in-and-out" framework. The first method, which Warden spends significant effort to disarm elsewhere in his book, is the enemy's fielded forces. The second is the enemy's economy, and by extension its war-supporting infrastructure. The third, and final method is the adversary's will. The crucial point here is that in every method Warden used the word *destruction* in his exhaustive treatment of objectives.

<sup>67</sup> Warden III, *The Air Campaign*, 7.

<sup>68</sup> Warden III, *The Air Campaign*, 34.

<sup>69</sup> Although Warden's familiar "Five Rings" concept wasn't published with *The Air Campaign*, he does outline a nascent consideration of the concept in the section titled, "Assaulting the Air Center of Gravity." Here he suggests these centers of gravity all in terms of material, "The enemy's air center of gravity may lie in equipment (numbers of

judgment of deciding which centers of gravity to strike, David Fadok suggests within Warden's consideration of the center of gravity lay two presumptions that contributed to his, and thus the Air Force's, bias toward attrition.<sup>70</sup> First, according to Fadok, Warden's conceptualization of a center of gravity was material in nature; and second, the center of gravity was vulnerable to destruction.<sup>71</sup> For Warden, and equally airmen, this is perceived as the most economical method of achieving an outcome because it reduces the costs of military action in both blood and treasure to achieve successful political outcomes.<sup>72</sup>

One final note that Warden's *The Air Campaign* affirms a strategy of attrition in the dispensation of airpower is his concern that destruction properly applied requires patience. "Territory is beguiling and time deceiving: The commander must beware of both," Warden noted after emphasizing the effects of airpower against centers of gravity may necessitate strategic patience. Warden suggests, using terms of exhaustion, "interdiction takes time to work; and attacks on war production take even more time."<sup>73</sup>

In sum, both AFM 1-1 and *The Air Campaign*, as examples of theory incorporated directly into sanctioned and sub rosa doctrine

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planes or missiles); in logistics (the quantity and resilience of supply support); geography (location and number of operational and support facilities); in personnel (numbers and quality of pilots); or in command and control (importance and vulnerability)." (34-35)

<sup>70</sup> According to David R. Mets, *The Air Campaign, John Warden and Classical Airpower Theorists*, Revised Edition (Maxwell Air Force Base, AL: Air University Press, 1999), 65–66: "There is not a consensus behind Warden's set of ideas, though many of his ideas are shared as company property handed down from Mitchell and his followers. It is not too much to say that most of his ideas were common to the officer corps of the interwar period and since. However, if *The Air Campaign* did no more than synthesize old ideas into a single, compact, and highly readable form, it would have much in common with *The Influence of Sea Power on History, 1660-1783*."

<sup>71</sup> David S. Fadok, "John Boyd and John Warden: Airpower's Quest for Strategic Paralysis," in *The Paths Of Heaven: The Evolution Of Airpower Theory*, ed. Phillip S. Meilinger (Maxwell AFB, AL: Air University Press, 1997), 372, 393n43.

<sup>72</sup> Warden III, *The Air Campaign*, 117; Fuller, *The Foundations of the Science of War*, 76–77; Olsen, *John Warden and the Renaissance of American Air Power*, 283–285.

<sup>73</sup> Warden III, *The Air Campaign*, 126, 125.



respectively, highlight the cumulative character of the Air Force's normative approach to warfare during the period immediately preceding Operation Desert Storm.<sup>74</sup> As J.C. Wylie pointed out, airpower's nature is expressed as a cumulative form of warfare, which seeks decision as result of "minute accumulation of little items piling one on top of the other until at some unknown point the mass of accumulated actions may be large enough to be critical."<sup>75</sup> This imperative for warfare is characterized by Kiras' noting "the directness of the path to victory does not matter so much as the net [strategic] effect."<sup>76</sup> Both AFM 1-1 and Warden argued it is appropriate to suggest that direct, force-on-force, battle need not occur for national and military objectives to be achieved.<sup>77</sup> The air weapon offers another way, the way of attrition and exhaustion in a manner that is more economical. The logic of appropriateness suggests attrition by airpower is preferable to the alternative of exorbitant slugfests between armies without first reducing or ideally exhausting their vigor for fighting.<sup>78</sup> This approach expounded

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<sup>74</sup> In fact, "Air Force Manual (AFM) 1-1," 2-13 explicitly states as much: "Integrated strategic and tactical action produce a cumulative effect on the enemy's ability to wage war. Successful strategic attacks directed against the heartland will normally produce direct effects on an enemy nation or alliance. Its impact on the military forces engaged in tactical action, however, may be delayed because of the inherent momentum of forces actively engaged in combat and those reserve forces ready to enter the action. Consequently, an air commander must exploit the devastating firepower of airpower to disrupt the momentum and place an enemy's surface forces at risk. To do this, an air commander must attack not only those enemy forces in contact, but enemy forces in reserve or rear echelons as well."

<sup>75</sup> Wylie, *Military Strategy*, 24.

<sup>76</sup> Kiras, *Special Operations and Strategy*, 69.

<sup>77</sup> "Air Force Manual (AFM) 1-1," 2-6, 2-11 through 2-14, 3-3, 3-4, see also A-6.; Warden III, *The Air Campaign*, 7-9, 34-55, 80-85, 116-117, 122-127, 132-136, but especially 115-116.

<sup>78</sup> The terrible trench warfare of World War I served as the driving impetus and seedcorn for many airpower theorists, and arguably, the doctrines that emphasized interdiction and strategic attack that followed. A brief treatment of this idea can be found in the following: Tami Davis Biddle, *Rhetoric and Reality in Air Warfare: The Evolution of British and American Ideas about Strategic Bombing, 1914-1945* (Princeton, N.J.: Princeton University Press, 2004), 4; Richard J. Overy, *The Air War: 1939-1945* (Washington, D.C: Potomac Books Inc., 2005), 5-6, 11-12, 12-14; William Mitchell and Robert S. Ehlers Jr, *Winged Defense: The Development and Possibilities of Modern Air Power--Economic and Military*, 1st Edition (Tuscaloosa, AL: University of Alabama Press, 2010), 16-17; Giulio Douhet, *The Command of the Air*, Reprint (Tuscaloosa, AL:

by airmen not only appears as an economy of force instrument over a more costly alternative, it also serves as a positive imperative for action reflected in their ideals, ideas, and behavior. To airmen, the reduction or exhaustion of the material strength and esprit of the adversary is absolutely necessary. Thus it is an *imperative* for action within the formulation of the Air Force's collective rationality. However, like the imperatives provided by the logic of consequences, this collective rationality is not only dependent upon the imperatives provided by the logic of appropriateness, but it is also influenced by the Air Force's cultural-cognitive preferences.

### **The Air Force's Cultural-Cognitive Pillar**

Institutions, are socially constructed entities. They exhibit ideals, ideas, and behavior that are resultant not only from attention to rules and the operation of norms, but also to the common cultural and cognitive formation of solutions to practical "coordination problems."<sup>79</sup> The cultural-cognitive aspects of the Air Force comprehend information within an idiosyncratically distinctive lens in both its internal and external dealings. This distinctively idiosyncratic method of dealing with internal coordination problems is expressed via language in its unique jargon, boundaries for inclusion, conferral of power and status, maintenance of good order and discipline, and distribution of rewards and punishments.<sup>80</sup>

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University Alabama Press, 2009), 9; Thomas H. Greer, *The Development of Air Doctrine in the Army Air Arm, 1917-1941* (Maxwell Air Force Base, AL: USAF Historical Division, Research Studies Institute, Air University, 1955), 3-13; Barry D. Watts, *The Foundations of U.S. Air Doctrine: The Problem of Friction in War* (Air University Press, 1984), 10-11.

<sup>79</sup> Scott, *Institutions and Organizations*, 47; Berger and Luckmann, *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*, 51; Surowiecki, *The Wisdom of Crowds*, 86.

<sup>80</sup> Schein, "Coming to a New Awareness of Organizational Culture," 11. See also Table 5. Organizational Problems of Internal Integration in Chapter 2 for further explanation.

External adaptation is expressed via distinctive forms of strategy, consensus upon its critical tasks, preferences for means, and measures of performance.<sup>81</sup> Air Force culture creates accord toward the external problems of the institution by formulating a schema that logically orders the environment. These enculturated beliefs, along with tacit knowledge and imitative development of behavior, create feelings of certainty in Air Force members via a logic of tradition. Air Force culture is pervasive, generally recognizable, but difficult to specify. The cultural-cognitive pillar of the Air Force is formulated and thus changed relatively slowly.

Because culture changes slowly, capturing the essential kernel of Air Force culture as it was immediately prior to Operation Desert Storm can rely upon numerous sources across a broad timespan. This thesis will rely primarily upon the recent insights and categorization provided by Jeffrey Donnithorne in *Culture Wars: Air Force Culture and Civil-Military Relations*, albeit with slight modification. According to Donnithorne, the enduring basis for the Air Force's logic of tradition is found in four attributes: technologically centered and future oriented, autonomously decisive, occupationally focused, and reified self-awareness.<sup>82</sup> Similarly to Carl Builder's previous analysis of Air Force culture, Donnithorne seeks to make generalizations regarding the institution when he states his "basic assumptions [are not] the only ones informing Air Force action, nor do these assumptions saturate the thinking of *every* Air Force member." Instead, Donnithorne's

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<sup>81</sup> Schein, "Coming to a New Awareness of Organizational Culture," 9. See also Table 6. Organizational Problems of External Adaptation and Survival in Chapter 2 for further explanation.

<sup>82</sup> Donnithorne, *Culture Wars*, 27-28, 34. Donnithorne actually suggested five attribution categories in his study of U.S. Air Force culture: technology centered, autonomously decisive, future oriented, occupationally loyal, and self-aware of its legitimacy. For the analytical purposes of this thesis, technology centered and future oriented were combined into one category because their similarity in the practical purpose of preparing for and actual use in warfare.

assumptions “serve as a broad generalization for the purpose of qualitative analysis.”<sup>83</sup>

**Technology Centered and Future Oriented.** Donnithorne suggests, “the most consistent and pervasive description of the Air Force is its core connection to technology.”<sup>84</sup> Builder also argued the Air Force worshiped at the “altar of technology.” Where the “airplane was the instrument that gave birth to independent air forces; the airplane has, from its inception, been an expression of the miracles of technology.”<sup>85</sup> Donnithorne’s expression is preferred because Builder’s inference strays too far from the core technological issue regarding airpower: as a mode of warfare, airpower had no other alternative but to be created out of technology. Builder confuses airpower as a means for strategic effect with a subsequent, yet beneficial, outcome of theory regarding “airmindedness.”<sup>86</sup> The point Builder underappreciates, but is implicit in Donnithorne’s statement, is the obvious fact that the purpose of airpower cannot be fulfilled without technology. As a method and domain of warfighting, it is not unique in this aspect.<sup>87</sup> As Colin Gray opined,

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<sup>83</sup> Donnithorne, *Culture Wars*, 27–28; Builder, *The Masks of War*, 7–9, 10–12. Builder avers “When I attribute motivations here to the American military services, I recognize: No individual member of that institution may have that motivation. Motivations are complex and seldom all-or-nothing in their character. Institutional motivations toward institutional survival, sovereignty, and well-being are legitimate enough, they just are not necessarily the same as those, say, of the country. Institutions are not necessarily free from some motivations sometimes found in individuals, even though they may not be universally admired or socially accepted.”

<sup>84</sup> Donnithorne, *Culture Wars*, 28.

<sup>85</sup> Builder, *The Masks of War*, 19; as quoted and referenced in Donnithorne, *Culture Wars*, 28.

<sup>86</sup> Gray, *Modern Strategy*, 300. “The five geographical domains of warfare are physically different, a fact that commands unique tactics, operations, and strategies (though not strategy, singular). It is only sensible that a country’s airpower should be developed and employed by an organization dedicated to its understanding and most skilled in its employment.”

<sup>87</sup> One might also consider the point J.F.C. Fuller made regarding the dual condition of the domains of warfare as both artificial and natural. The domains of warfare are artificial, as war cannot be broken into air war, sea war, or land war—as the modes in which war is conducted are socially constructed conceptions. But the air, sea, and land are obviously different in their physical constraints, and thus, especially in those domains that man cannot simply stand upon, as on the sea or in the air, there was a

airpower was not merely discovered, but had to be invented.<sup>88</sup> Thus, the cultural-cognitive focus of the airman upon technology is not merely a matter of seeking legitimacy for independence, a point that will be considered later, but rather its technological focus must be delineated between what airpower is and the purpose it serves.<sup>89</sup> As Gray remarks, “A relatively high technological focus by air forces is inevitable, necessary, and desirable.”<sup>90</sup> The Air Force’s technologically centered focus in its ideas, ideals, and behavior is best recapitulated by Donnithorne’s observation of this aspect of its culture, which was as true for the service just prior to Desert Storm as it was when he opined the following:

The Air Force exists because of technology, and its ongoing superiority is sustained by the ascendance of its technology. As the first and most important machine, the manned airplane is the building block of the force.<sup>91</sup>

In this line of thinking, through the logic of tradition, the internal integration of Air Force culture is focused primarily upon the aircraft, while also interested in remaining relevant in external adaptation. Given the constantly changing task environment that the Air Force must

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need for the creation of a method to persist sufficiently to perform some act of strategic effect. That method is technologically enabled. Fuller, *The Foundations of the Science of War*, 186–187.

<sup>88</sup> Gray, *Airpower for Strategic Effect*, 18.

<sup>89</sup> Gray, *Airpower for Strategic Effect*, 30. Gray suggests, “Notwithstanding the pervasive and critically enabling importance of technology for airpower, it is necessary not to be confused as to what airpower is all about. Airpower is about neither science and engineering nor the weapons that those linked branches of endeavor can deliver, nor even about the joy of flying. One must not collapse what airpower is with what it is about. Each element in the familiar statement of the strategic function is essential: ends, ways, and means. The connections among the three are as crucial as the merits in each regarded individually.” Also, note Gray’s critique and rejection of David MacIsaac’s theory that airpower theory is driven principally by the material developments and behavior of the air forces desire for independence rather than seeking strategic advantage and effect via the air weapon. While the early promulgators of airpower theory were certainly men interested in power and influence, they were also thinkers dealing with a very novel and equally serious form of warfare as found in the other domains. Gray suggests the generally shared assumption, which Builder expresses, is “thoroughly erroneous,” 10-12.

<sup>90</sup> Gray, *Airpower for Strategic Effect*, 298.

<sup>91</sup> Donnithorne, *Culture Wars*, 29.

contend with, the service must also maintain a wary eye on the horizon of technological change. Donnithorne, Builder, and even Gray, are right to point out that the institution trends toward a technologically determinist preference in its main instruments of warfare. While the Air Force's deterministic inclinations should not be misunderstood as absolute, or purely deterministic, as a service it does see technology ever advancing and thus capable of creating a predetermined future of possibilities for the outcome of war.<sup>92</sup>

Donnithorne points out this soft form of determinism in the "Air Force's institutional passion for technology and airplanes translates into a consistent prioritization of quality over quantity."<sup>93</sup> Builder suggests this has taken on meaning as an institutional convention for survival and internal integration when he discusses the Air Force's preference for expensive technology. "To be outnumbered may be tolerable, but to be outflown is not. The way to get the American flier's attention is to confront him with a superior machine."<sup>94</sup> Gray supports this contention when he observes, "The technical performance qualities of machines have always been literally vital to airpower to a much greater degree than generally is true for land power or even for sea power. This fundamental physical fact can encourage, and historically has encouraged, an affection for technical performance at the expense of paying due attention to the tactical, operational, strategic, and political purposes of the flying machines."<sup>95</sup>

Such conventions of Air Force culture finds their expression in a manner that is often confusing to outside observers, but the pervasive commitment to maintaining a qualitative advantage in technology is

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<sup>92</sup> Joellen Pretorius, "The Technological Culture of War," *Bulletin of Science, Technology & Society*, June 17, 2008, 1, doi:10.1177/0270467608319592.

<sup>93</sup> Donnithorne, *Culture Wars*, 29.

<sup>94</sup> Builder, *The Masks of War*, 22; as quoted in Donnithorne, *Culture Wars*, 29.

<sup>95</sup> Gray, *Airpower for Strategic Effect*, 298.



easily apparent in Air Force culture.<sup>96</sup> Considering this aspect of the Air Force culture, particularly its high relative dependency upon technological advantage, Gray suggests that the air forces, along with navies, struggle with an obsession over technological might much more than armies.<sup>97</sup> Donnithorne recapitulates this aspect of Air Force culture in the following observation:

Technology and potential adversaries change quickly, and the Air Force must orient forward to the unknown future instead of the forgotten past. The Air Force must pursue next-generation systems today to be ready for tomorrow.<sup>98</sup>

The Air Force's critical task, in general, is to create strategic effect via the air domain. To accomplish this task, its culture must address all aspects of its institutional functions, but must particularly remain focused upon its critical tasks. As previously noted, if an institution can no longer adapt to changes in its task environment or acclimate its critical tasks to that external environment, it will cease to be relevant. This concern gives rise to the Air Force's cultural preference for air superiority and technological offset against adversaries leveling within the external environment, which is a deterministic aspect of this at play during the forecasting of threats by the institution. As emphasized in the previous chapter, preferences in buffering and leveling are particularly important to the cultural pillars of military institutions, and thus forecasting and counter-leveling is exceptionally important to the Air Force as a technologically reliant service. The Air Force is acting strategically to maintain its preferences for action when forecasting and countering peer and adversary leveling. The stark alternative to an institution finding its preferences exhausted is being left merely with imperatives for action, which is anathema to any entity in matters of

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<sup>96</sup> Donnithorne, *Culture Wars*, 31.

<sup>97</sup> Gray, *Airpower for Strategic Effect*, 298.

<sup>98</sup> Donnithorne, *Culture Wars*, 32.

strategic choice.<sup>99</sup> In the building of consensus within the Air Force on how to adapt to future changes in the external environment, it consistently reframes upon a threat of *significance* rather than *likelihood*, where the former is presumed to be more dangerous to both the Air Force's critical tasks and to its provision of national security than the latter.<sup>100</sup>

**Autonomously Decisive.** The Air Force, according to Donnithorne, throughout its history has exhibited “an abiding desire for politically unconstrained, uniquely decisive operations.” As a cultural convention in the Air Force, the appeal for decisiveness is consistent throughout its various institutional forms. This cultural convention has progressed from the idea of airpower before the age of airplanes as

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<sup>99</sup> Thompson, *Organizations in Action*, 18–23. There are numerous historical examples where air forces were forced to give up their preferences and had to deal as best they could with only imperatives for action. For such considerations, one might start with but should not limit their study to the following: Williamson Murray, *Strategy for Defeat: The Luftwaffe 1933-1945* (Maxwell Air Force Base (AL); Washington (DC): Air University Press, 2000); Mark Peattie, *Sunburst: The Rise of Japanese Naval Air Power, 1909-1941* (Annapolis, MD.: Naval Institute Press, 2013); Robin Higham and Stephen Harris, eds., *Why Air Forces Fail: The Anatomy of Defeat*, 1st Edition (Lexington, KY: University Press of Kentucky, 2006).

<sup>100</sup> Keith L. Shimko, *The Iraq Wars and America's Military Revolution* (New York, NY: Cambridge University Press, 2010), 222–223. Shimko addresses the concern regarding a deterministic view of forecasting in a constantly changing external environment. “[The] connection between past performance and future policy is not straight-forward. Previous experience can only tell us what the military does well, not what it *needs* to do well. The military lessons of [history] can support a range of future defense policies depending on predictions about the future strategic environment as well as assessments of American interests and likely threats to those interests. Unless there are sufficient resources to prepare for all conceivable threats to every interest, choices need to be made and priorities set on the basis of these assessments. This is why the decision to concentrate on conventional warfare after Vietnam may very well have been the correct strategy. If resources were limited and the primary threat to America's most important interests was conventional, preparing to counter the threat should have been the focus of the military policy.” Regarding prioritization, Shimko adds, “the military must be *able* to fight in any conflict, but not equally so: the military should prepare for some contingencies more than others. The need for prioritization in the abstract is easy to accept. It is an essential element of a grand strategy. More difficult is identifying what should be emphasized and de-emphasized. Prioritization is partly an intellectual exercise involving judgments and predictions about the *likelihood* and *significance* of threats years and even decades into the future. This intellectual task is complicated enough. Unfortunately, prioritization is also an intensely political process with important consequences for the allocation of resources among powerful interests and institutions.” (Emphasis added.)

expressed in works like H.G. Wells *The War in the Air*, to the post-World War II analysis in the *United States Strategic Bombing Surveys*.<sup>101</sup> As described previously, when cultural conventions progress from basic solutions to routines and traditions, they begin to take on the appearance of orthodoxy to outside observers.<sup>102</sup> The belief in the inherent decisiveness of airpower is also a manifestation of this in Air Force culture. When such conventions are applied backward into history, this received wisdom of autonomously decisive airpower approaches orthopraxy and thus forms an easily identifiable indicator of institutional parochialism in those who express this argument for airpower. This occurs because the reasoning aspects of the cultural-cognitive pillar of institutional examination create an often-imperceptible bias in how the past is made intelligible in the present.

It is in this same category of Air Force culture where “goal displacement” is most apparent. Donnithorne provides an important insight for goal displacement when he observes the “Airman’s love of technology and aircraft, coupled with an [institutional] commitment to strategic bombing, forged a focus on *means* instead of ends.”<sup>103</sup> Goal displacement occurs, according to Robert Merton, when overextended preference is transformed into unjustifiable sentiment, and “an instrumental value becomes a terminal value.”<sup>104</sup> This cultural manifestation of goal displacement is to enhance the Air Force’s normative imperatives for destruction. “The tremendous rush of technology...has not guaranteed military success,” according to Mark Clodfelter, but what “it has done...is create a modern vision of air power that focuses on the lethality of its weaponry rather than on that

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<sup>101</sup> H. G. Wells, *The War in the Air* (London; New York: Penguin Classics, 2007); Franklin D’Olier and Henry C. Alexander, eds., *The United States Strategic Bombing Surveys (Summary Reports)*, Reprint Edition (Maxwell Air Force Base, AL: Air University Press, 1987).

<sup>102</sup> Scott, *Institutions and Organizations*, 68–69.

<sup>103</sup> Donnithorne, *Culture Wars*, 30.

<sup>104</sup> Merton, “Bureaucratic Structure and Personality,” 562–563.

weaponry's effectiveness as a political instrument.”<sup>105</sup> Although it was not exceptional in this regard, the post-Vietnam Air Force was captivated with the idea that policy and warfare were distinctly separated by political objectives and clear war termination criteria.<sup>106</sup> Michael Sherry lends support to this manifestation of goal displacement when he suggests that during the Cold War, “The task, not the purpose, of winning governed” Air Force culture.<sup>107</sup> The Air Force’s preference to view itself as being autonomously decisive and its tendency to exhibit goal displacement in its ideas, ideals, and behavior forms the basis for Donnithorne’s description of Air Force culture:

The Air Force has the power to change the face of the earth. It can do what no other service can do. To realize its true potential, the Air Force should be employed kinetically, offensively, over-whelmingly, and with minimal political interference.<sup>108</sup>

**Occupationally Focused.** The logic of tradition in the cultural-cognitive pillar is a learned behavior on the part of the institution’s members. The Air Force acculturates its new members and creates internal incentives for further enculturation of those members that progress through its ranks. Donnithorne observes the “Air Force’s technology-focused DNA replicates itself in the hearts of its members.”<sup>109</sup> This proclivity for technology is merely one example of the pervasiveness of Air Force culture within its institutional bounds. Others include a common idiosyncratic language, respect for hierarchical authority, recognition of symbols of rewards through awards and promotion, and

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<sup>105</sup> Clodfelter, *The Limits of Air Power*, 203.

<sup>106</sup> Frank G. Hoffman, *Decisive Force: The New American Way of War* (Westport, Conn: Praeger, 1996); Harry G. Summers, *On Strategy: A Critical Analysis of the Vietnam War*, Reissue edition (Presidio Press, 2009); H. R. McMaster, *Dereliction of Duty : Johnson, McNamara, the Joint Chiefs of Staff, and the Lies That Led to Vietnam*, 1st edition (New York: Harper, 1997); Stephen P. Randolph, *Powerful and Brutal Weapons: Nixon, Kissinger, and the Easter Offensive* (Cambridge, MA: Harvard University Press, 2007).

<sup>107</sup> Michael S Sherry, *The Rise of American Air Power: The Creation of Armageddon* (New Haven: Yale University Press, 1989), 180; Donnithorne, *Culture Wars*, 30.

<sup>108</sup> Donnithorne, *Culture Wars*, 31.

<sup>109</sup> Donnithorne, *Culture Wars*, 32.

even metaphysical perceptions such as its “worship at the altar of technology.”<sup>110</sup> Edgar Schein indicates institutions must pass meaningful and proven concepts on to newer members. This logic of action passed to new members suggests such patterns have been identified by the group as verified by experience as useful for warfighting via the air. Here, internal consensus becomes important in determining how best to deal with external challenges to the task environment. Therefore, untested or debated patterns of action rarely survive passage to new members.<sup>111</sup> This largely occurs because abiding by the shared understanding of common beliefs creates a sense of order and harmony for the members of the Air Force.

Although many of the attributes of institutional culture are taught and demonstrated to new accessions to the Air Force, there is an enduring enculturation function via the closed-career principle. The closed-career principle leads to a personnel system that is self-governed in the setting of criteria for advancement. While the closed-career principle has tremendous advantages in terms of normative outcomes, particularly in how the Air Force promotes professionalism and the principle is fairly well explicated in statutory rules, it does have the cultural trade-off of creating a self-referring, homogenized, and generally closed-minded system that encourages conformity.<sup>112</sup>

The Air Force is not unique in the closed-career principle, as every institution has distinctive criteria for determining the allocation of rewards and punishments.<sup>113</sup> For the Air Force, Donnithorne posits that

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<sup>110</sup> Builder, *The Masks of War*, 19.

<sup>111</sup> Schein, “Coming to a New Awareness of Organizational Culture,” 7.

<sup>112</sup> Mosher, “Some Observations about Foreign Service Reform,” 605.

<sup>113</sup> Schein, “Coming to a New Awareness of Organizational Culture,” 11. For more insight into the closed-career principle, one might also consider a recent Chairman of the Joint Chiefs of Staff’s comment on how it leads to “ducks picking ducks,” see Michael G. Mullen, “Admiral Mullen’s Speech on Military Strategy, Ft. Leavenworth, March 2010” (Speech, Fort Leavenworth, KS, March 4, 2010),

its distinctive standards are often shaped around occupational, rather than institutional criteria and this tendency is particularly notable within its pilot ranks.<sup>114</sup> Donnithorne defines occupational orientation as “a primary loyalty to the task or occupation,” whereas he defines institutional orientation as “loyalty [chiefly] to the institution itself over the task performed within that institution.”<sup>115</sup>

James Smith concludes that the Air Force’s occupational orientation is much more nuanced than Builder, or even Donnithorne suggest. In his review of a survey of Air Force officers that was made only a few years after Operation Desert Storm and thus presumably well within the same cultural paradigm of our period of interest, he found, rather unsurprisingly, that junior officers tended to relate to their occupations in a manner that appears to preclude a large institutional identity.<sup>116</sup> Smith attributes this occupational orientation largely to the emphasis the Air Force must place upon training individuals in their technical craft. Regardless of what technical specialty it is, the training and indoctrination usually entailed significant time and effort. He also suggests these specialized training efforts are distinctive from the Air Force’s joint partners, especially from the ground-combat services who have shorter and markedly less technologically focused training.<sup>117</sup>

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<http://www.cfr.org/defense-strategy/admiral-mullens-speech-military-strategy-ft-leavenworth-march-2010/p21611>.

<sup>114</sup> Donnithorne, *Culture Wars*, 32; Builder, *The Masks of War*, 23, 37; Carl H Builder, *The Icarus Syndrome: The Role of Air Power Theory in the Evolution and Fate of the U.S. Air Force* (New Brunswick, N.J.; London: Transaction, 2003), 35; Smith, “The Air Force Culture and Cohesion,” 22.

<sup>115</sup> Donnithorne, *Culture Wars*, 38n76.

<sup>116</sup> The Air Force is not exceptional in terms of intraservice distinctions. The Army also has important intraservice distinctions between the branches of their forces; the greatest distinction it makes is between their combat arms branches and its sustainment branches. The conventional wisdom, supported merely by qualitative analysis, suggests these distinctions are not nearly as important in our present case as they are to the Air Force. However, these distinctions were at times very divisive within the U.S. Army’s history. For comparison to Air Force occupational loyalty within the same cultural paradigm of Operation Desert Storm, see Builder, *The Masks of War*, 24–27.

<sup>117</sup> Smith, “The Air Force Culture and Cohesion,” 45.



Unsurprisingly, upon the completion of these significant training efforts there is great pride of association with the technical manipulation of their machines, even to the detriment of the institution.<sup>118</sup>

But Smith also found that, as opposed to the tendency to focus on occupation, officers of higher rank and completion of professional military education displayed greater than expected institutional orientation. Ultimately, despite the received wisdom from qualitative analysis like Builder, Smith's quantitative analysis of the survey data found the "Air Force retains an 'institutional' foundation," even if this foundation was assumed to be more technologically focused than other military institutions.<sup>119</sup> In sum, the veracity of the claim that Air Force culture remains occupationally focused is still undecided. Stated differently, how sufficiently an Air Force technical expert should be dedicated to institutional conventions mutually exclusive of their occupation is still open to debate. While the Air Force tends to worship at the altar of technology in order to achieve its critical tasks, it is far from clear the distinctive use of the closed-career principle within the service lends itself to an occupationally oriented force at the detriment of the broader institution. Builder and Donnithorne's analyses suggest it has, whereas in Smith's quantitative analysis suggests this hypothesis is hardly decided during the same cultural paradigm as Operation Desert Storm. What is clear, however, is that Air Force culture has a distinctive "hierarchy of overlapping motivations" that are different from its joint partners.<sup>120</sup> So, because the hypothesis of the occupational orientation remains somewhat of an open question, it is with minor modification that we can express Donnithorne's cultural assumption as follows:

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<sup>118</sup> Builder, *The Masks of War*, 23.

<sup>119</sup> Smith, "The Air Force Culture and Cohesion," 48.

<sup>120</sup> Donnithorne, *Culture Wars*, 33; Builder, *The Icarus Syndrome*, 35; Smith, "The Air Force Culture and Cohesion," 48.

The Air Force is an honorable and patriotic means to practice a desirable high-tech trade. Loyalties to the trade, machine, and subculture [may] outweigh loyalty to the institution.<sup>121</sup>

**Reified Self-Awareness.** In Donnithorne's final assertion about Air Force culture he suggests, "the service still suffers an unsteady conviction of its own institutional legitimacy."<sup>122</sup> Builder further highlights this weakness of the Air Force's confidence in its own identity in his *The Icarus Syndrome* by suggesting, if true in the days leading up to Operation Desert Storm, the Air Force lacked either: "a unique sense of identity, or a shared sense of purpose."<sup>123</sup> This supposedly waning identity or flagging purpose could be attributed to any number of reasons. But what was most significant in the period immediately previous to Operation Desert Storm was the promulgation of the Goldwater-Nichols Act of 1986. The Goldwater-Nichols Act had significant implications for the Air Force, but more narrowly focused upon its influence on culture, it was merely a continuation of a trend toward increased jointness. In light of this importance, the trend toward jointness found its beginnings in the institution's less-than-stellar integration with its joint partners in the Vietnam experience. In particular, how forces were presented in the war met serious detractions based on what Donald Mrozek refers to as "fragmentation of authority," but also a "fragmentation of a sense of responsibility" for particular forms of airpower.<sup>124</sup>

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<sup>121</sup> In Donnithorne, *Culture Wars*, 33, he states that loyalties "to the trade, machine, and subculture *often* (emphasis added) outweigh loyalty to the institution." Given the indication that the quantitative analysis contradicts the qualitative assessment of that point, the language has been changed to reflect it as an open question.

<sup>122</sup> Donnithorne, *Culture Wars*, 33.

<sup>123</sup> Builder, *The Icarus Syndrome*, 276.

<sup>124</sup> Mrozek, *Airpower and the Ground War in Vietnam*, 155–160, 1. The title of Mrozek's first part is aptly named "Everybody's War, Nobody's War," as a description for how the services competed even whilst fighting a war against an adversary unimpressed by the artificial distinctions made between traditional preferences for how to fight between competing services.

Given the humbling lessons of Vietnam, joint interoperability garnered an increased sense of importance in the years that followed, particularly in the face of a substantial Soviet threat in Europe. This suggests service independence was diminished in the period preceding Operation Desert Storm. Furthermore, in relation to the cultural importance of remaining autonomously decisive, the Air Force was dealing with a shifting set of initiatives that deemphasized its reified proviso to supplant other forms of warfare as “war winning. Instead it required appreciation for a more complementary view of joint warfare. This created an opportunity for conjecture that risked autonomous decisiveness; equally then, it also risked distinctive artifacts of culture, and perhaps most cynically, even service independence. But even though warfare is joint, geography is not.<sup>125</sup> Despite the rationality that pursuit of interoperable joint arms was preferable to the alternative, the Air Force still required the necessary contemplation to distinguish itself without confusing the air weapon for its purpose regardless of the composition of the joint force chosen to meet such purpose.

Furthermore, in a period that emphasized AirLand Battle, the extended battlefield, operational art, and joint initiatives instead of distinctly “airminded” options for winning in the future, the Air Force was mired in a malaise of strategic introspection.<sup>126</sup> The inefficiency and ambiguity of official doctrine exacerbated the problem at the time before Operation Desert Storm. Sub rosa doctrine, as previously discussed, created some opportunity for the Air Force to anticipate a joint future—but this was hardly incorporated into the ideology of the institution, and it certainly was not used in official acculturation processes. Therefore, the constitutive schema of the Air Force was in what could be

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<sup>125</sup> Gray, *Airpower for Strategic Effect*, 61.

<sup>126</sup> The greater question here is whether or not the concerns raised here are limited to only the Air Force. Builder, in his discussion of the purposes and uses of service strategies in *The Masks of War*, 60, suggests it is not.

characterized as a crisis during this period.<sup>127</sup> In response to this crisis, the Air Force issued the white paper *The Air Force and U.S. National Security: Global Reach—Global Power*.

*Global Reach—Global Power* attempted to enumerate the distinctive contributions of airpower to the joint force in future conflicts. It was purposefully abstract and meant to be anticipatory in light of the crisis that jointness had created for the culturally supported belief in autonomous decisiveness.<sup>128</sup> Gray has observed that the “history of airpower is not self-interpreting,” and during this period, the corporate culture of the Air Force was struggling with interpreting its past as prologue to the changing external environment.<sup>129</sup> The Air Force’s strategic malaise prior to *Global Reach—Global Power* reflected a misunderstanding within its ranks that considered jointness as mutually exclusive of “airmindedness.” The rationale of this thought alleged that if airpower did not act independently then it was serving the purposes of a sister service, which would place the hard won service independence at risk. Instead, the reinterpretation of airpower in this period emphasized unique expertise of “airmindedness” upon the provision of sufficient airpower for the nation’s strategic needs instead of forcing the opposite.<sup>130</sup> In sum, this malaise recognized a subtle change in Air Force culture that, after several attempts in proving otherwise, recognized “airpower is as necessary as it is insufficient” for the strategic success of the joint team.<sup>131</sup> This observation of Air Force culture in this period underscores Donnithorne’s final assumption:

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<sup>127</sup> Michael P. Geranis, “Building on Builder: The Persistent Icarus Syndrome at Twenty Years” (Thesis, Air University, 2013), 33–42.

<sup>128</sup> Builder, *The Icarus Syndrome*, 269–275.

<sup>129</sup> Gray, *Airpower for Strategic Effect*, 67.

<sup>130</sup> Gray, *Airpower for Strategic Effect*, 34–35. This is particularly apparent in Builder, *The Icarus Syndrome*, 5–10, which quotes at length portions of an internal Air Force white paper titled, “A View of the Air Force Today” in 1989.

<sup>131</sup> Gray, *Airpower for Strategic Effect*, 255.

Major combat operations are the best setting to showcase the full potential of the independent Air Force. In any other venue, the Air Force serves an essential supporting role in which it is largely taken for granted. During these times of invisible contribution, the Air Force must articulate its relevance to the nation and itself.<sup>132</sup>

The cultural-cognitive aspects of the U.S. Air Force as an institution are best comprehended via a lens that highlights its distinctive ideals, ideas, and behavior from both internal and external points of view. The enduring basis for the Air Force's logic of tradition is chiefly found in four attributes: technologically centered and future oriented, autonomously decisive, occupationally focused, and reified self-awareness.<sup>133</sup> These idiosyncratic methods of internal coordination are expressed via language in its unique jargon, boundaries for inclusion, conferral of power and status, and distribution of rewards and punishments to its members.<sup>134</sup> The Air Force's external adaptation is expressed via its preferences for strategy, prioritization of its critical tasks, preference for means, and measures of performance.<sup>135</sup> The Air Force's culture creates internal harmony toward the external problems of the institution by formulating a constitutive schema that logically orders the environment via the building of consensus.

The enculturated beliefs, tacit knowledge, and imitative development of behavior create feelings of certainty in the members

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<sup>132</sup> Donnithorne, *Culture Wars*, 34.

<sup>133</sup> Donnithorne, *Culture Wars*, 27–28, 34. Donnithorne actually suggested five attribution categories in his study of U.S. Air Force culture: technology centered, autonomously decisive, future oriented, occupationally loyal, and self-aware of its legitimacy. For the analytical purposes of this thesis, technology centered and future oriented were combined into one category because their similarity in the practical purpose of preparing for and actual use in warfare.

<sup>134</sup> Schein, "Coming to a New Awareness of Organizational Culture," 11. See also Table 5. Organizational Problems of Internal Integration in Chapter 2 for further explanation.

<sup>135</sup> Schein, "Coming to a New Awareness of Organizational Culture," 9. See also Table 6. Organizational Problems of External Adaptation and Survival in Chapter 2 for further explanation.

of the institution via the logic of tradition. Culture is pervasive in the Air Force, generally recognizable but difficult to specify beyond its most apparent artifacts. Perhaps more so than the other pillars, it is formulated, and thus changed, relatively slowly. Obviously, the logic of tradition cannot alone determine the actions of the U.S. Air Force, but it does give its observers insight into both how and why it prioritizes its preferences. Furthermore, the cultural-cognitive preferences of the Air Force interact with its regulatory and normative imperatives in a complex manner to form a theory of victory *in toto*.

### **Synthesis: The Air Force Theory of Victory Prior to Desert Storm**

In the period leading up to Operation Desert Storm, the U.S. Air Force had a regulatory imperative to provide air superiority, strategic attack, and even support the efforts to the U.S. Army to achieve national security objectives. These imperatives flowed largely from the National Security Act, its amendments, and DODD 5100.01. As these were all primary functions directed to the Air Force, it could not subvert them, although it could still shirk a lower-priority mission if it conflicted with its normative prioritization. However, clear subversion, and even shirking was subject to the sanction of punishment via the logic of consequence, so even the lowest-priority function required a modicum of the Air Force's attention.

The normative pillar of the Air Force theory of victory prioritized its roles, missions, and functions in order to meet what it perceived as the most efficient use of airpower. Both the official and sub rosa doctrine of this period prioritized air superiority and strategic attack to exhaust the adversary's will to fight. This was prioritized over sister-service support, which for the purpose of the present historical example focuses upon battlefield air interdiction and close air support. While cultural



preferences, particularly the autonomous decisiveness aspect, might have supported the prioritization of the critical tasks of air superiority and strategic attack over support to the Army, the imperative for attrition in the Air Force logic of appropriateness was much more important to the institution. Airmen, even with their concerns focused solely upon national security objectives, found life-saving merit in the exhaustion of the adversary's will by the means of destroying their materiel and denying their strategy. Here, attrition via airpower was much preferred to the costly alternative of exorbitant casualties between armies. This approach expounded by airmen not only appeared as an economical alternative to land power, it served as a positive imperative for action reflected in their ideals, ideas, and behavior. To airmen the direct reduction of their adversary's material strength via destruction of centers of gravity and the indirect exhaustion of their adversary's morale were absolutely necessary, and thus imperatives for action.

Finally, the culture of the U.S. Air Force promoted the attributes of a technologically centered and future oriented, autonomously decisive, occupationally focused, and reified self-aware force. While the Air Force clearly had competing conventions within its force, its constitutive schema generally favored the aforementioned attributes. During this period, the Air Force's technologically centered and future oriented attribute was the most compelling. This attribute was self-imposed upon the Air Force via the logic of tradition from acculturation in accession through continued enculturation as its airmen progressed through professional military education and increased rank and responsibility. Where rules and norms told airmen *how* to win, the culture of the Air Force told them *what* victors do in its comprehensive theory of victory. Ultimately, it is this theory of victory that told airmen *why* they win and *how* they do.

The Air Force theory of victory captured in 1990 was not only a guide to action, but it also reflected a descriptive and existential reality to the airmen within the institution.<sup>136</sup> It pervaded its every action, and most importantly, shaped the structure, strategy, and processes of the Air Force. The Air Force theory of victory in this period was how it coped with the inherent uncertainty of the world in which it is expected to win, and therefore, like the other military services, it could not approach Iraq's invasion of Kuwait *tabula rasa*. The Air Force theory of victory did more than anticipate its future in Iraq, it determined its specific actions in response; more so, it sought to shape the U.S. response in a "negotiated environment."<sup>137</sup>

It is through such a negotiated environment the Air Force attempted to define or redefine military success in Operation Desert Storm. It also sought to accentuate its institutional relevance via what it saw as a certain outcome, and advocated the adoption of the capabilities it determined essential to its critical tasks and essence via buffering or leveling. Furthermore, the Air Force used its theory of victory to shape the negotiated environment to revise the norms for recruitment, forge strategies for warfighting, and posture for the consolidation of the rewards of increased legitimacy via victory.<sup>138</sup>

This analysis concludes that the Air Force theory of victory immediately prior to Operation Desert Storm encouraged the eminence of air superiority and strategic attack against its adversary, but also found a strategic imperative in providing support to the Army despite its lesser normative priority. Furthermore, it found a normative imperative in its attritional "airminded" warfare of choice upon airmen-selected strategic and operational centers of gravity that aimed to mitigate and deny its

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<sup>136</sup> Gray, *Modern Strategy*, 144.

<sup>137</sup> Allison and Zelikow, *Essence of Decision*, 170, 167.

<sup>138</sup> Allison and Zelikow, *Essence of Decision*, 170, 167.

adversary's capabilities and strategy, thus breaking its will to fight. Finally, it wielded a clear preference for an air weapon that required deep-rooted technical capability and expertise to exert an asymmetric advantage over any challenger not only in its own domain but also against land forces. It thus sought to improve the image and relative importance of the airman-pilot over other warriors.

This theory of victory meets all three of Martel's requirements. It identified *how* Air Force imperatives for functional tasks contribute to victory. It also described the imperatives for *how* these attributes and critical tasks contribute to victory, even if these judgments might be implicit. Finally, it provided both imperatives and preferences for priority of *what* Air Force's attributes and critical tasks that contribute to victory in a context that also made summary judgments amongst the attributes and critical tasks of the other military services. By examining each of the regulatory, normative, and cultural-cognitive pillars of the Air Force, and teasing out their respective logics of action in consequence, appropriateness, and tradition, a clearer military means-ends chain that, in the institution's belief best contributed to national security, is identified as a collective rationality for action. In sum, this complex layering of concepts flowed together to form the Air Force's theory of victory immediately prior to Operation Desert Storm, and *why* airmen believed what they did in that war was right.

## **Chapter 4**

### **The U.S. Army Theory of Victory in 1990**

This chapter seeks to create an argument for the collective rationality of the U.S. Army as it existed in 1990, just prior to the Iraqi invasion of Kuwait and the subsequent events that culminated in Operation Desert Storm. The methodology applied here is the same as used in the previous chapter. It is built upon the application of Scott's institutional framework to develop a collective rationality for the Army that addresses all the requirements of Martel's framework for a theory of victory. To do this, this chapter will analyze each of the disparate pillars of the Army to answer the distinct questions of *how* and *why* this institution does what it does to address both its imperatives and preferences. It will identify the critical attributes and tasks of land warfare that create the first requirement of Martel's framework for a theory of victory. It will also describe the extent to which these attributes and tasks contribute to victory. Finally, using Scott's framework, the theory of victory will describe the relative influence or priority of these attributes and tasks in creating the conditions for victory.<sup>1</sup>

#### **The Army's Regulatory Pillar**

Like the Air Force, the regulative pillar of the U.S. Army is built on those dimensions sanctioned by the national security apparatus. The Army, by virtue of its placement in the hierarchy of government, *must* also follow and set rules of expedience and fear coercive outcomes in order to create regulatory order. The Army *must* do the things it does because the law and directives force it to by the logic of consequences. In this pillar, the emotions of fear, guilt, and innocence are operative in the judgment of its ideals, ideas, and behavior. So, in order to examine

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<sup>1</sup> Martel, *Victory in War*, 90.

the institution of the Army via the regulatory lens, a brief review of the rules that govern its behavior is apt.

The War Department was created by statute in 1789.<sup>2</sup> Until the Spanish-American War, joint action between the Department of War and the Department of the Navy was the exception rather than the rule. During this period, outside of the Civil War, the attention of the U.S. Army focused principally on confrontations with Native Americans on the national frontier. This focus remained until Elihu Root became the Secretary of War in 1899. The sacking of his predecessor and the performance of the Army during the Spanish-American War served as the catalyst for reform during Root's tenure. Root's analysis of the Spanish-American War concluded that the cause of the Army's poor performance was largely internal faults, and most of his subsequent reforms were designed to address them.<sup>3</sup> However, the global scale of the war and the relatively complicated Cuban campaign required closer interaction between the Army and the Navy; and in almost every case, this was found to inadequate. One possible reason for this poor blending of joint action can now be discerned in hindsight as the lack of a forcing function for integration.<sup>4</sup>

The lack of cooperation between the Army and the Navy came to a head during Cuban campaign. There, according to Jack Kingston, the Navy "virtually abandoned the Army at the siege of Santiago."<sup>5</sup> The siege of Santiago exhibited a divergence of imperatives for the Army and the Navy. James Locher identified the root of this problem as being the lack of regulatory compellence forcing coordination between the services

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<sup>2</sup> Locher, *Victory on the Potomac*, 16.

<sup>3</sup> David E. Johnson, *Fast Tanks and Heavy Bombers: Innovation in the U.S. Army, 1917-1945*, 1 edition (Ithaca: Cornell University Press, 2003), 19-20.

<sup>4</sup> "Origin of the Joint Chiefs of Staff," *Joint Chiefs of Staff*, accessed April 30, 2015, <http://www.jcs.mil/About/OriginofJointConcepts.aspx>.

<sup>5</sup> Jack A. Kingston, "Restructuring the Warfighting Capability of the United States, Part 1," *United States Army Aviation Digest*, October 1994, 11.

below the authority of the President. This led to Root's support for the formation of the Joint Army-Navy Board, which was charged with addressing "all matters calling for cooperation of the two services."<sup>6</sup>

The Joint Board, however, lacked any formal authority over the Department of War or the Department of the Navy. Therefore, it was of minimal consequence to joint performance in World War I. Little consideration was given to joint planning and conduct in the Great War. Despite its lacking regulatory authority, in 1927 the Joint Board promulgated a non-binding agreement for "information and guidance." Titled *Joint Action of the Army and the Navy*, the document established an enduring precedent in terms and spelled out "general" and "secondary" functions for each service in hopes that so doing would settle disputes over overlapping duties and interests. The document was required due to the increased interest by both the Department of War and the Department of the Navy in the air weapon. Two of the five pages of *Joint Action of the Army and the Navy* were focused on clarifying the functions of the Army and Navy's air components. Ultimately, because *Joint Action of the Army and the Navy* lacked the authority to bind the military services to their commitments, its revisions and the subsequent agreements that followed failed to create sufficient order to bring about the joint planning and conduct of our nation's wars. Given little fear of consequences, a stronger expedient was necessary to regulate the ideals, ideas, and behavior of the Army to cooperate with other services. The National Security Act of 1947 and DODD 5100.01, along with their subsequent revisions filled this need.<sup>7</sup>

**National Security Act.** As of August 1990, the National Security Act, Section 205 (e), amended Title 10, U.S. Code, Chapter 307, Section

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<sup>6</sup> Locher, *Victory on the Potomac*, 17.

<sup>7</sup> Collins, "Roles and Functions of U.S. Combat Forces," 3, 61, 65-70; Eilon et al., "Evolution of Department of Defense Directive 5100.01," 4-8.



3062. Policy; composition; organized peace establishment, paragraph (b) read:

In general the United States Army, within the Department of the Army, shall include land combat and service forces and such aviation and water transport as may be organic therein. It shall be organized, trained, and equipped primarily for prompt and sustained combat incident to operations on land. It shall be responsible for the preparation of land forces necessary for the effective prosecution of war except as otherwise assigned and, in accordance with integrated joint mobilization plans, for the expansion of peacetime components of the Army to meet the needs of war.<sup>8</sup>

This statute outlines the “combatant functions” of the Army. The National Security Act, in conjunction with annual National Defense Authorization statutes, generally addresses the requirements of the James Q. Wilson’s Procedural Organization framework. Within this framework, Congress can measure the Army’s compliance with law on a quantitative bases of authorized force structure, doctrine, and activities. This peacetime activity lends itself to preparation for transition to wartime in what Wilson describes as a Craft Organization. In contradistinction to the Air Force’s statutory logic of consequences, the Army has a built in ambiguity in its responsibility for “organic” functions.<sup>9</sup>

Of particular note, the National Security Act established an organic requirement for the Army to maintain an aviation element. The National

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<sup>8</sup> 80th Congress; Chapter 343, 1st Session; S. 758, “The National Security Act of 1947,” 8; Collins, “Roles and Functions of U.S. Combat Forces,” 91.

<sup>9</sup> Kurtz and Crerar, “Military Roles and Missions,” 13–16. Later in their analysis Kurtz and Crerar clarify the term organic: “*Organic* is a military term of art, defined [as of March 2009] in the current DoD Dictionary of Military and Related Terms as ‘Assigned to and forming an essential part of a military organization. Organic parts of a unit are those listed in its table of organization for the Army, Navy, Air Force, and Marine Corps, and are assigned to the administrative organizations of the operating forces for the Navy.’ In other words, the National Security Act of 1947 both recognized and authorized the continued existence of aviation elements owned and operated by each of the Services.” (26)

Security Act served as a culmination of efforts to delineate combat responsibilities between the military services, but the Act also served as a method for the reduction of needless redundancy in the forces. While the National Security Act provided regulatory compellence for the ideas, ideals, and behavior of the military services, in part, it also created a tension between them, particularly between the Air Force and the Army. The problem of precision lies in the fact that the National Security Act provided the Army with an obligation for “such aviation as may be organic therein,” but did not clearly stipulate what that statement meant. This statutory ambiguity persisted through the Korean and Vietnam Wars, through Operation Desert Storm, and into the present.

Similarly, but distinctively from the Air Force, the National Security Act strengthened the Army’s *raison d’etre* on regulatory grounds, from which its formal authority and part of its institutional essence were clarified. As noted in the discussion of the Air Force’s regulatory pillar, the functions enumerated by statute are specific, but they are not exhaustive. The purposeful inclusion of the responsibility for “organic” capabilities, particularly in aviation, created numerous opportunities for interservice strife until it was constructively aided by amplification from the executive branch of government. Thus, there is a need to address further statutory ambiguity because it creates an inherent tension between the responsibilities of the military services. The functions and responsibilities of the Army are not dictated by statute alone, but also by Department of Defense directive.<sup>10</sup> DODD 5100.01 was reviewed in some depth in Chapter 3; in this chapter however, only the passages pertinent to the Army are discussed.

**DODD 5100.01.** Department of Defense Directive 5100.01, as enacted on September 25, 1987, stated:

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<sup>10</sup> Kurtz and Crerar, “Military Roles and Missions,” 13–16.

- (2) The primary functions of the Army are:
  - (a) To organize, train, and equip forces for the conduct of prompt and sustained combat operations on land—specifically, forces to defeat enemy land forces and to seize, occupy, and defend land areas.
  - (g) To provide forces for the occupation of territories abroad, including initial establishment of military government pending transfer of this responsibility to other authority.
- (3) A collateral function of the Army is to train forces to interdict enemy sea and air power and communications through operations on or from land.
- (5) Other responsibilities of the Army. With respect to close air support of ground forces, the Army has specific responsibility for the following:
  - (a) Providing, in accordance with inter-Service agreements, communications, personnel, and equipment employed by Army forces.
  - (b) Conducting individual and unit training of Army forces.
  - (c) Developing equipment, tactics, and techniques employed by Army forces.<sup>11</sup>

The issue over the lack of statutory precision in the determination of “organic” aviation forces was also settled by a critical clarification of tying “requirements” to primary functions in DODD 5100.01, particularly regarding close air support:

The forces developed and trained to perform the primary functions set forth hereafter shall be employed to support and supplement the other Military Service forces in carrying out their primary functions [for example, the Air Force’s primary function for close air support], where and whenever such participation shall result in increased effectiveness and shall contribute to the accomplishment of the overall military objectives. As for collateral functions, while the assignments of such functions may establish further justification for stated force requirements, such assignments shall not be

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<sup>11</sup> As quoted in Annex F, Current Roles and Functions of Collins, “Roles and Functions of U.S. Combat Forces,” 91–93.

used as the sole basis for establishing additional force requirements.<sup>12</sup>

While no statutory restriction was placed on the Army's need for organic aviation, there was a clearer constraint in DODD 5100.01 in that the service was restricted from resourcing collateral functions beyond "further justification for stated force requirements" as necessary for its primary functions. The question regarding how the Army justifies its requirement for organic offensive rotary-wing aviation assets is warranted in that it is an integral part of a combined arms ground maneuver unit. This means there is a subtle difference between the Air Force's primary function of close air support and the Army's primary function of sustained combat operations on the land via close combat attack aircraft. Similarly, the Army's need for mobility is inherent to its primary functions, even if it may not be immediately apparent to the layperson.<sup>13</sup> Therefore, while it has often been argued organic Army aviation and Air Force support is wasteful and redundant, they serve different, yet complementary, functional purposes.

Within the regulatory pillar, as noted in the previous chapter, the obligation of an institution is tied directly to the precision in which external parties can prove shirking and subversion. As the logic of consequences goes for the military services, the fear of punishment is commensurate with the precision of the forcing function. The National Security Act, as a statute, had to be sufficiently broad to account for unforeseen situations in the future. Therefore, the statute has a considerable amount of ambiguity as written regarding the functions of the military services, particularly in how the obligations of these functions are measured. On the other hand, DODD 5100.01 improves

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<sup>12</sup> DODD 5100.01, Functions of the Department of Defense and its Major Components (25 September 1987) as quoted in Appendix D of Kurtz and Crerar, "Military Roles and Missions," D-11, D-12.

<sup>13</sup> Wolf, *The United States Air Force Basic Documents on Roles and Missions*, 401-405, 379-384.

upon the relative precision of the consequences of military shirking, but only to a point, as there will always be some imprecision even in directives. Thus, the National Security Act and DODD 5100.01 both provide a legal basis that cannot be avoided by the Army; even if they are inherently imprecise, they both form an imperative for action for the service.<sup>14</sup> Ultimately, the Army has a legal obligation to perform its functions as dictated by both statute and directive. Yet, despite all the possible consequences that might result from a determination of whether or not the Army meets its obligations, the logic of consequences is silent on the *priority* of functions that might compete under limited resources. Therefore, as is true for the Air Force, the imperatives formed by the logic of consequences is insufficient for the development of an Army theory of victory. Thus, consideration must be extended to determining how the Army determines what is most appropriate under varied contexts.

### **The Army's Normative Pillar**

The normative pillar of the U.S. Army is also built on an imperative for action that fulfills a role appropriate for the land combat arm. The Army *must* fulfill this role because of the functional imperative of professionalism. Similarly, there are normative imperatives for Air Force action. Thus the Army must do the things it does because doctrine and theory are dictated by the logic of appropriateness applied to specific contexts. In the normative pillar, the emotions of shame and honor are operative in the judgment of the Army's professional ideals, ideas, and behavior, and thus are morally governed by "social contract" in a principal-agent relationship between the institution as agent and the nation as the principal. In order to examine the Army via the normative lens, a basic review of service doctrine is fitting.

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<sup>14</sup> Kuehl and Miller, "Roles, Missions, and Functions," 103, 105.

Army doctrine, unlike its sister-service the Air Force, has long resisted a tendency for informal formulations of service beliefs. Stemming from the reforms of Elihu Root, the Army began promulgating formal doctrine with the Field Service Regulations of 1905. The Root reforms brought a remarkable age of introspection to a rapidly professionalizing U.S. Army. Along with the establishment of formal doctrine and formal schools of professional education, the service sought to educate broad clusters of its members. These reforms had a significant impact on developing a key form of normalized expertise by promoting doctrine that informed sanctioned professional intuition. Toward that end, it was the Field Service Regulations of 1905 emphasized the strength and importance of decisiveness in offensive operations and brought the term “decisive action” into the Army professional lexicon.<sup>15</sup>

Field Manual (FM) 100-5 *Operations*, as published in 1986, reinforced a long trend of institutional intuition that leaned upon the appropriateness of decisive action as established in the Field Service Regulations of 1905. The 1986 version of FM 100-5, despite a previous version’s segue into “Active Defense,” made it clear that seeking decisiveness was affectively honorable and proper to the Army’s normative logic.<sup>16</sup> To do otherwise would be wasteful of the resources at its disposal, most importantly the lives of soldiers entrusted to the service’s leadership. This inclination for decisiveness was more than simply a practical weighing of limited options and utility. Rather, as historian Hans Delbrück remarked in his *History of the Art of War*, “The first natural principle of all strategy is to assemble one’s forces, seek out the main force of the enemy, defeat it, and follow up the victory until the defeated side subjects itself to the will of the victor and accepts his

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<sup>15</sup> Walter E. Kretchik, *U.S. Army Doctrine: From the American Revolution to the War on Terror*, Modern War Studies (Lawrence: University Press of Kansas, 2011), 108–114.

<sup>16</sup> Kretchik, *U.S. Army Doctrine*, 199–207.



conditions.”<sup>17</sup> In accordance with Delbrück’s insight, FM 100-5 frames the normative expectation of the Army in a view that dictates in most contexts an imperative for annihilation. Certainly, the term decisiveness lends itself to such a strategy, but there are other watchwords within the Army capstone doctrine. The terms maneuver, positional advantage, and initiative also denote alignment with this imperative.

**Maneuver and Positional Advantage.** Throughout history, examples of maneuver gaining a positional advantage over a foe has been seen as the acme of the military art.<sup>18</sup> Here, Napoleon, himself the “God of War,” is seen as the master of this method of strategy that is annihilation.<sup>19</sup> Delbrück suggested Napoleon’s genius was in consistently finding how to position his main effort on the flank of his opponent, or envelop him, so as to break the fighting spirit of the adversary’s army and defeat it.<sup>20</sup> The historical archetype for annihilation is found in the Battle of Cannae, in which an advantage in mobility created the opportunity for a rare double-envelopment that led to positional advantage. Ultimately, this advantage allowed a small Carthaginian force under Hannibal to defeat a larger Roman army. The theme of fighting outnumbered and winning was emphasized throughout FM 100-5. Ever since the outcome of Cannae in 219 B.C., armies have frequently sought to emulate the maneuver in some form.<sup>21</sup> This occurs not just because of preference, but rather, the logic of appropriateness seeks to match intuition, roles, and expertise into a calculation of expectation based upon previous experiences—even if they are from

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<sup>17</sup> Hans Delbrück, *The Dawn of Modern Warfare*, trans. Walter J. Renfro Jr, vol. IV, History of the Art of War (Lincoln, Neb: University of Nebraska Press, 1990), 293.

<sup>18</sup> Antoine-Henri Jomini, *The Art of War* (Mineola, New York: Dover Publications, 2007), 160–161, 183–184.

<sup>19</sup> Clausewitz, *On War*, 583.

<sup>20</sup> Delbrück, *The Dawn of Modern Warfare*, IV:433.

<sup>21</sup> Geoffrey Parker, ed., *The Cambridge History of Warfare*, Revised Edition (New York: Cambridge University Press, 2009), 158, 273, 441; Archer Jones, *The Art of War in Western World*, Reprint Edition (Urbana: University of Illinois Press, 2001), 42, 44, 250, 345, 368, 407, 501–502.

ancient history.<sup>22</sup> The 1986 edition of FM 100-5 reiterates the themes of maneuver and positional advantage as received wisdom, as demonstrated in the following excerpts:

In high- or mid-intensity conflicts, Army forces must prepare to fight campaigns of considerable movement, not only to reduce vulnerability, but also to obtain positional advantage over the enemy.<sup>23</sup>

Maneuver is the movement of forces in relation to the enemy to secure or retain positional advantage. It is the dynamic element of combat—the means of concentrating forces at the critical point to achieve the surprise, psychological shock, physical momentum, and moral dominance which enable smaller forces to defeat larger ones... Effective maneuver keeps the enemy off balance and thus also protects the force. It continually poses new problems for the enemy, renders his reactions ineffective, and eventually leads to his defeat.<sup>24</sup>

Offensive campaigns may be fought against either concentrated or dispersed enemy forces. Facing a concentrated enemy, large unit commanders should attempt through maneuver to force the enemy to abandon his position or fight at a disadvantage. In practice, this means directing operations against the enemy's flanks or rear or penetrating his defenses through weak areas. It also implies operating on converging lines of action, a technique that requires close coordination and can expose the separated forces to defeat in detail.<sup>25</sup>

Positional advantage, and the maneuver for such, is merely one very practical method of what is often referred to as seizing the initiative. Thus, like maneuver and positional advantage, the initiative is seen as obligatory to securing military and political objectives.

**Offensive Initiative.** Seizing the initiative is another important characteristic of an imperative of annihilation. Ian Fleischmann opines “By its nature, initiative requires the continuance of the attack and the

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<sup>22</sup> March and Simon, *Organizations*, 8; Allison and Zelikow, *Essence of Decision*, 146.

<sup>23</sup> “Field Manual (FM) 100-5 (1986): Operations” (Headquarters, Department of the Army, May 1986), 2, <http://cgsc.cdmhost.com/cdm/ref/collection/p4013coll9/id/893>.

<sup>24</sup> “FM 100-5 (1986),” 12.

<sup>25</sup> “FM 100-5 (1986),” 111.

spirit of the offensive.” If merely considered in simple terms, Fleischmann suggests that initiative might incorrectly be defined as a mutually exclusive property between two opponents. But, as he also points out, war is never merely the sum of disparate events that results in a determination of who holds the initiative and when retained results in victory. There is much more at work. Instead, warfare is much too dynamic and confounding for such a simplistic view of the initiative to suffice.<sup>26</sup> Walter Kretchik suggests seeking offensive initiative has long been a cornerstone of U.S. Army doctrine.<sup>27</sup> This tendency reflects a long-standing normative, and positive, form of strategic self-reliance in continental warfare theory.<sup>28</sup> Baron Antoine-Henri Jomini stated what might be the core of this normative principle, “the army taking the initiative has the great advantage of bringing up its troops and striking a blow where it may deem best, whilst the army which acts upon the defensive and awaits an attack is anticipated in every direction, is often taken unawares, and is always obliged to regulate its movements by those of the enemy.”<sup>29</sup>

The emphasis on seeking the offensive to seize the initiative is interesting because of the generally regarded truth promulgated by Clausewitz that the defense is “the stronger form of waging war.”<sup>30</sup> But, Clausewitz also pointed out defense is not merely “a simple shield” that seeks a negative aim, but a practical means to husband strength so as to

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<sup>26</sup> Ian W. Fleischmann, “Operational Initiative in Theory and Doctrine” (Monograph, School of Advanced Military Studies, 2015), 1.

<sup>27</sup> Kretchik, *U.S. Army Doctrine*, 199.

<sup>28</sup> Huba Wass De Czege, “The Hard Truth about ‘Easy Fighting’ Theories: The Army Is Needed Most When Specific Outcomes Matter,” Essay, The Landpower Essay Series (Association of the United States Army, April 2013), <http://www.ausa.org/publications/ilw/DigitalPublications/Documents/lpe13-2/offline/download.pdf>.

<sup>29</sup> Antoine-Henri Jomini, *The Art of War* (Mineola, New York: Dover Publications, 2007), 167, see also 65; as quoted in Fleischmann, “Operational Initiative in Theory and Doctrine,” 8.

<sup>30</sup> Clausewitz, *On War*, 359.

transition to a positive aim via the offense.<sup>31</sup> Clausewitz also suggested seizing the initiative incorporates maneuver and positional advantage when he proposes, “The main feature of an offensive battle is the outflanking or by-passing of the defender—that is, taking the initiative.”<sup>32</sup>

Beyond the seemingly theoretical necessity for taking the offensive, there are also institutional advantages to seizing the initiative. Barry Posen reasons that the reduction of uncertainty will compel a military institution to focus upon the offensive. In each institutional pillar there is a basis of forming order from uncertainty, which in normative terms this is expressed by expectations of appropriateness. The U.S. Army, to borrow from Posen, seeks offensive doctrines because it seeks a “standard scenario” in which its actions impose order in the face of uncertainty. Said differently, the “standard scenario” imposed on an uncertain environment results in more predictive, stable, and certain outcomes than ceding the initiative to the adversary.<sup>33</sup> Furthermore, seizing the initiative also has the benefit of defeating the adversary’s “standard scenario” by forcing them to react to one’s own actions. Such an imperative for offensive action in doctrine, according to Posen, also reflects a prudent resistance to acquiescing to the decisions of the opponent.<sup>34</sup> FM 100-5 reflects these normative propensities in the following passages:

AirLand Battle...is based on securing or retaining the initiative and exercising it aggressively to accomplish the

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<sup>31</sup> Clausewitz, *On War*, 357, 358, 364; Fleischmann, “Operational Initiative in Theory and Doctrine,” 8–10.

<sup>32</sup> Clausewitz, *On War*, 530.

<sup>33</sup> By using the term “standard scenario,” Posen expresses an idea reliant upon standard operating procedures. SOPs recall the structural requirements of institutions as observed by Graham Allison, which is derivative of insights from James March, Herbert Simon, James Thompson, and James Q. Wilson. As mentioned in the previous chapter, the predictability inherent to SOPs provides institutions with order in the face of environmental uncertainty.

<sup>34</sup> Posen, *The Sources of Military Doctrine*, 44–50.

mission. The object of all operations is to impose our will upon the enemy—to achieve our purposes. To do this we must throw the enemy off balance with a powerful blow from an unexpected direction, follow up rapidly to prevent his recovery and continue operations aggressively to achieve the higher commander's goals. The best results are obtained when powerful blows are struck against critical units or areas whose loss will degrade the coherence of enemy operations in depth, and thus most rapidly and economically accomplish the mission. From the enemy's point of view, these operations must be rapid, unpredictable, violent, and disorienting.<sup>35</sup>

The offensive is the decisive form of war—the commander's ultimate means of imposing his will upon the enemy.... Even in the defense itself, seizure and retention of the initiative will require offensive operations. The more fluid the battle, the more true this will be.<sup>36</sup>

Offensive operations are characterized by aggressive initiative on the part of subordinate commanders, by rapid shifts in the main effort to take advantage of opportunities, by momentum, and by the deepest, most rapid destruction of the enemy defenses possible. The ideal attack should resemble what Liddell Hart called the "expanding torrent." It should move fast, follow reconnaissance units or successful probes through gaps in enemy defenses, and shift its strength quickly to widen penetrations and to reinforce its successes, thereby carrying the battle deep into the enemy rear. Forces or areas that are critical to the enemy's overall defensive organization should be destroyed or brought under control rapidly before the enemy can react to the attack.<sup>37</sup>

In any offensive campaign, the commander should try to collapse enemy defenses throughout the theater as rapidly as possible while protecting himself from unnecessary losses. Offensive campaigns should seek to retain the initiative, to strike enemy weaknesses, to attack the enemy in great depth, and to create fluid conditions which prevent the enemy from organizing a coherent defense.<sup>38</sup>

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<sup>35</sup> "FM 100-5 (1986)," 14.

<sup>36</sup> "FM 100-5 (1986)," 91.

<sup>37</sup> "FM 100-5 (1986)," 109.

<sup>38</sup> "FM 100-5 (1986)," 110.

In sum, offensive initiative is part and parcel of the logical attraction to annihilation as displayed by the U.S. Army's normative pillar. It is reinforced by the received wisdom of historical experience in land warfare.<sup>39</sup> However, maneuver, positional advantage, and seeking the positive aim of gaining the initiative via the offense does not account wholly account for the Army's imperative for annihilation. One final consideration must be taken into account – decisiveness.

**Decisiveness or Decisive Battle.** The crux of the strategy of annihilation, in addition to maneuver, positional advantage, and the positive aim of seizing the initiative, is focused on decisiveness. Jomini opined that the fundamental principle of war was “to throw by strategic movements the mass of an army, successively, upon the decisive points of a theater of war.”<sup>40</sup> Clausewitz also supports this line of thinking, albeit with significant caveat, that the “immediate object of attack is victory,” and decisiveness is the desired outcome of a victory.<sup>41</sup> Delbrück inferred the strategy of annihilation from Clausewitz's prefatory note of 1827, but also relied upon his chapter titled “Attack on a Theater of War: Seeking a Decision” found in Book Seven, Chapter Fifteen. Gordon Craig suggests there was a long practice of finding the annihilation strategy appropriate in continental warfare.<sup>42</sup>

Seeking decisiveness in battle, however, is not only found appropriate on a theoretical basis, but also on practical grounds. Given the growing trend of destructiveness in modern warfare, attrition appears to be relatively unimaginative, wasteful of valuable resources, and

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<sup>39</sup> Jomini, *The Art of War*, 65, “In a moral and political view, the offensive is nearly always advantageous: it carries the war upon foreign soil, saves the assailant's country from devastation, increases his resources and diminishes those of his enemy, elevates the *morale* of his army, and generally depresses the adversary.”

<sup>40</sup> Jomini, *The Art of War*, 63.

<sup>41</sup> Clausewitz, *On War*, 545, but he caveats this in Book Six, Chapter Three, 363, when he places victory outside the realm of strategy and squarely into the realm of tactics (which one could argue is also operations) by remarking “in strategy there is no such thing as victory...strategic success lies in the exploitation of a victory won.”

<sup>42</sup> Craig, “Delbrück: The Military Historian,” 341.



presumed to lead to longer wars that seek decisive outcomes by way of a rather bloody cumulative effect.<sup>43</sup> This practical logic is found appropriate because the U.S. Army has often found itself numerically challenged in relative terms compared to many of its opponents. In such uses, victory by way of attrition is found inappropriate because it produces dubious metrics such as body counts where a relative net loss of blood and treasure is found immoral.<sup>44</sup> The Army's aversion to attrition also takes into account a perception that heavy casualties could diminish the popularity of the war. Such unpopularity could also decrease the perception of success in the war and diminish the Army's honor.<sup>45</sup> Thus, a strategy of annihilation is not merely a matter of preference for the U.S. Army but it also a theoretical and practical imperative. FM 100-5 expresses these concepts in the following language:

Our operational planning must orient on decisive objectives.<sup>46</sup>

While offensive operations may have as their objective the destruction or neutralization of an enemy force, inflicting physical damage is frequently incidental to offensive success. Rather, large gains are achieved by destroying the coherence of the defense, fragmenting and isolating enemy units in the zone of the attack, and driving deep to secure operationally decisive objectives. Historically, the most successful offensive operations have produced more enemy prisoners than casualties, reflecting the corrosive impact of offensive shock on the enemy's will to resist.<sup>47</sup>

The campaign should attempt to defeat the enemy in a single operation when possible. When all of the defending forces are well forward or when a theater of operations is relatively shallow, it may be possible to penetrate or envelope the defense quickly. In such cases, operational reserves may be

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<sup>43</sup> Gray, *Modern Strategy*, 160, 147.

<sup>44</sup> Gray, *The Strategy Bridge*, 68.

<sup>45</sup> Adam J. Berinsky, *In Time of War: Understanding American Public Opinion from World War II to Iraq*, Chicago Studies in American Politics (Chicago ; London: The University of Chicago Press, 2009), 4–5, 7, 63–65, 72–74, 76–84, 118–126.

<sup>46</sup> "FM 100-5 (1986)," 14.

<sup>47</sup> "FM 100-5 (1986)," 94.

kept out of battle and maneuvered through, around, or over the battle area. Their mission will be to occupy the theater in depth and to preempt the enemy's attempts to establish supplementary defenses.<sup>48</sup>

The choices for employing corps or divisions held in reserve will be between using it to annihilate the enemy in the battle area or pushing it through the defended area to secure deep objectives. Seizing objectives in operational depth is preferable since that will set the terms for the campaigns next phase or may even gain the objectives of the campaign.<sup>49</sup>

The 1986 edition of FM 100-5, as the capstone doctrine for the period that included Operation Desert Storm, provided the U.S. Army its normative role in warfare. The Army's normative pillar is captured in this doctrine, while not completely dismissive of attritional strategies of warfare, reflected a clear imperative for strategies of annihilation. These are expressed by communicating to its reader the appropriateness of the concepts of maneuver, positional advantage, offensive initiative, and decisiveness. FM 100-5 as doctrine, which is the official expression of both theoretical insight, but also the social construction of experiential best practices, provided the Army with a broad range of answers to the following contextual questions: What kind of situation is this? How should the institution adjust its ideals, ideas, and behavior in a context such as this? The answers to these questions provide the Army with the roles it *must* fulfill because of the logic of appropriateness. However, these imperatives are balanced and adjusted by rules guided by the logic of consequences and culture by the logic of tradition.

### **The Army's Cultural-Cognitive Pillar**

The U.S. Army, like the U.S. Air Force, is a socially constructed entity, with a particular culture. The Army's cultural-cognitive characteristics comprehend information within a lens that rationalizes its

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<sup>48</sup> "FM 100-5 (1986)," 110.

<sup>49</sup> "FM 100-5 (1986)," 112.

internal and external dealings on the basis of the logic of tradition. Its idiosyncratic method of dealing with internal coordination problems is expressed via language using unique jargon, boundaries for inclusion, and judgments on how power and status is conferred.<sup>50</sup> External adaptation is expressed via distinctive forms of strategy, consensus on the Army's critical tasks, and preferences for means.<sup>51</sup> Culture creates harmony toward the institution's external problems by formulating a constitutive schema that logically orders the environment. The enculturated beliefs, tacit knowledge, and imitative development of behavior create feelings of certainty in the members of the institution via the logic of tradition. Ultimately, culture is pervasive in interacting with the other pillars of the Army as well as shaping the preference within its ideals, ideas, and behavior.

In his book *The Echo of Battle*, Brian Linn analyzes the U.S. Army's culture. Linn uses metaphors to categorize the Army culture into "Guardians," "Heroes," and "Managers." While these "intellectual traditions" are not treated as mutually exclusive or sequential, Linn believes they sufficiently form the Army "way of war." These categories are culturally constructed within the Army as a blended perception of the past, interpretation of contemporary hazards, and anticipation for future conflict. Linn suggests "At many times two of [the categories] have overlapped and the third has almost disappeared. Nor are they always in opposition. At times their proponents have reached consensus on policies, weaponry, or the nature of current and future conflict."<sup>52</sup> Guardians, Heroes, and Managers compete for the Army's intellect by pulling on, pushing upon, and shaping the institution's dominant

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<sup>50</sup> Schein, "Coming to a New Awareness of Organizational Culture," 11. See also Table 5. Organizational Problems of Internal Integration in Chapter 2 for further explanation.

<sup>51</sup> Schein, "Coming to a New Awareness of Organizational Culture," 9. See also Table 6. Organizational Problems of External Adaptation and Survival in Chapter 2 for further explanation.

<sup>52</sup> Brian McAllister Linn, *The Echo of Battle: The Army's Way of War* (Cambridge, Mass.; London: Harvard University Press, 2009), 5, 233.

constitutive schema. Internal quarrels over policies, weapons, strategy, and doctrine are built on the cultural conventions that are informed by Linn's categorizations of Guardians, Heroes, and Managers. The recognition of these distinctive intellectual schemas of culture allows us to understand the Army logic of tradition and therefore informs the collective rationality that constituted its theory of victory prior to Operation Desert Storm.<sup>53</sup>

**Guardians.** The first organized pattern of thought in Army culture according to Linn is the Guardian logos. This intellectual tradition relies on the belief that warfare is both an art and a science, in which according to Linn the "former consists largely of the application of the latter."<sup>54</sup> Linn suggests that Guardians subject warfare to axioms and principles that provide a learned insight in their technical application in combat. In the reforms in the aftermath of Vietnam, Linn believes the Guardians were most affected by the improvements to Army culture, force structure, tactics, and doctrine. According to Linn, the most distinctive Guardian artifact is what was dubbed the "Weinberger Doctrine."<sup>55</sup> The Weinberger Doctrine presupposed strict conditions for anticipating conflict and created a mental filtration and sense-making perception that preferred "fast, overwhelming and decisive application of maximum force in the minimum amount of time...[with a clear] exit

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<sup>53</sup> Linn, *The Echo of Battle*, 235.

<sup>54</sup> Linn, *The Echo of Battle*, 5.

<sup>55</sup> Patrick Porter, "The Weinberger Doctrine: A Celebration," *Infinity Journal* 3, no. 3 (Summer 2013): 8. The Weinberger Doctrine relies upon six tenets: the vital interests of the United States or its allies must be at stake; once committed, the effort should be wholehearted; political objectives must be clearly defined; that objectives must be continually reassessed to preserve a balance between means and ends; there must be Congressional and public support; and war should be undertaken only as a last resort. Porter summarized the Weinberger Doctrine in the following manner, "if America has to fight, it should do so for tightly defined and achievable goals, with strong backing from the political class and the masses, and it must strike hard."

strategy.”<sup>56</sup> In effect, the Guardians sought to impose a rationale of “no more Vietnams” on the Army’s logic of tradition.

Linn lists Chairman of the Joint Chiefs of Staff Colin Powell as a key advocate of the Guardian convention within Army culture leading into the war with Iraq in Operation Desert Storm. Furthermore, he suggests, in part, the 1976 version of FM 100-5 that promulgated Active Defense emphasized the calculative perception of Guardians who believed NATO and the U.S. Army had a qualitative advantage over the weaponry of the Warsaw Pact. This created a very emotional debate within the Army, particularly with its Heroes, who tended to disparage the qualitative assumptions of weaponry. In sum, the Guardians bring a strong preference for the science of warfare, where objective measures of performance are preferred for dealing with the Army’s critical tasks in the external environment.<sup>57</sup> The Guardian cultural convention was ardently focused on the more easily calculated performance aspects of warfare that the Soviet threat provided in Europe than the subjective, qualitative aspects of warfare that were experienced in Vietnam. However, the Guardians were not the only cultural convention influenced by the Vietnam experience.

**Heroes.** According to Linn, Vietnam left the Heroes of the Army in complete disarray because they perceived their warrior ethos had been found lacking. Ultimately, “the martial spirit of their opponents exceeded that of the army in the later stages of the war.”<sup>58</sup> One compelling argument of Heroes based the flagging martial capabilities of soldiers in Vietnam on the quality of recruits that served in the Army. The moral decay of a force under severe stress was apparent even before the end of the war: drug use and desertion were rampant, there were over 800-

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<sup>56</sup> Donald M. Snow and Dennis M. Drew as quoted in Linn, *The Echo of Battle*, 198.

<sup>57</sup> Linn, *The Echo of Battle*, 198–199, 204–205.

<sup>58</sup> Linn, *The Echo of Battle*, 199.

recorded instances of soldiers “fragging” their superiors between 1969 and 1971, the 1974 U.S. Army was 20,000 soldiers below its authorization, and over 40% of the recruits coming into the force were merely attaining the lowest criteria of mental aptitude required to serve.<sup>59</sup> In these circumstances, Heroes believed only stark reform in training, discipline, and ethics could restore the Army’s warfighting capabilities.<sup>60</sup> However, the depth of the Hero cultural convention went even further than training and recruiting. The intellectual tradition of this convention necessitated an élan that emphasized a fighting spirit over all other considerations, and only an American population that valued what the Army valued, would sustain a sufficient fighting force.<sup>61</sup>

In this cognitive and cultural frame of tradition, the subjective moral forces of warfare dominate the worldview of its liegemen. Thus, a higher-quality soldier becomes the soundest requirement for success. This superior soldier had to exhibit superior courage, strength, discipline, martial skills, honor, and these attributes “will inevitably secure victory, unless betrayed by other factors.”<sup>62</sup> The preeminent example of the Hero mythos in Army culture was the swaggered persona of General George S. Patton, Jr., who believed that “war is an art and as such is not susceptible of explanation by fixed formula.”<sup>63</sup> In the affective dimension of culture, compared to Guardians and Managers, Heroes have a stronger emotional tie to their service, which might be considered a “jealous regard” for their military institution. Heroes tend to view technological advantage as fleeting. They also view weaponry in a

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<sup>59</sup> Scales, *Certain Victory*, 6–7.

<sup>60</sup> Linn, *The Echo of Battle*, 200.

<sup>61</sup> Linn, *The Echo of Battle*, 236; James Kitfield, *Prodigal Soldiers: How the Generation of Officers Born of Vietnam Revolutionized the American Style of War*, Brassey’s paperback ed edition (New York: Simon & Schuster, 1995), 207–208, 211, 214, 304–305, 306.

<sup>62</sup> Linn, *The Echo of Battle*, 8. Linn continues by stating, “In the face of evidence that charismatic leadership, tactical skill, high morale, and martial experience does not guarantee victory, Heroes blame their enemy for failing to fight honorably and their own civil and military leaders for wanting sufficient will to win.”

<sup>63</sup> Linn, *The Echo of Battle*, 6.



manner that approaches the instrumentalist extreme, which is the polar opposite of the technological determinism favored in relative degree and increasing order by the Managers and Guardians within the U.S. Army, and the U.S. Air Force in general.<sup>64</sup> Furthermore, Heroes tend to view the other Army cultural conventions with deep suspicion by making no distinction in their pejorative view of the more bureaucratic traditions of the Guardians and the Managers.<sup>65</sup>

**Managers.** According to Linn, Managers see warfare primarily as an organizational matter. While this seemingly approaches war in the same straightforward manner as Guardians, as a matter of distinction, Managers do not see the human struggle in combat as a matter of science. The Manager convention sees human *and* materiel considerations being interrelated. Linn makes this clear when he suggests “Guardians seek to make war more predictable, the Managers seek to make war more effective.”<sup>66</sup>

In the period preceding Operation Desert Storm, Managers felt the Army was in need of sweeping reform. In the personnel reforms following the transition to the “all volunteer force,” Managers sought to align their proposal for improved technology in the “Big-5” acquisition (the M1 Abrams tank, M2 Bradley fighting vehicle, UH-60 Blackhawk helicopter, AH-64 Apache attack helicopter, MIM-104 Patriot air defense system) with the reorganization sought by Heroes. Ultimately, it was the

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<sup>64</sup> Linn, *The Echo of Battle*, 6-7, 26-28, 42, 67, 122-123, 132-133, 139-140, 166-167, 172-173, 185-189, 203-204, 242; see also, Pretorius, “The Technological Culture of War,” 2-4. Heroes typically resist any implication that weapons and their use impact the social construction of the constitutive schema of the Army. The issue for Heroes is the measure of influence technology has over human decision-making, and thus they seek to preclude such choices via a preference that ends should never be influenced by the means. Means are just tools to Heroes, and thus there is no reason to diminish the value of courage, moral strength, martial discipline, and honor for the sake of a technological instrument. See also, Martin Heidegger, *The Question Concerning Technology and Other Essays*, trans. William Lovitt (New York, N.Y.: Garland Publishing, Inc, 1977).

<sup>65</sup> Linn, *The Echo of Battle*, 8.

<sup>66</sup> Linn, *The Echo of Battle*, 8.

Managers who ensured the reforms were anchored to the reiteration of the Army's capstone doctrine FM 100-5 in 1976, 1982, and again in 1986. While these documents varied in their specific organizational particulars, especially in forcing the transition from an imperative of attrition to one of annihilation, doctrine served as the cornerstone for the post-Vietnam Army's holistic reform. Despite their significant differences, the commonality between the 1976 and 1986 versions of FM 100-5 was the organizational approach taken to managing "assets" (weapons and people), "force multipliers" (intelligence and training), to achieve success on the battlefield in order to obtain strategic effect.<sup>67</sup> The Managers who led the Army through its radical reformation prior to Operation Desert Storm were General William E. DePuy and General Donn Starry. Their common focus on a specific, but extremely dangerous, adversary in Europe led them to develop Active Defense and AirLand Battle respectively.

During this period, the Managers were the dominant Army convention of Linn's three categorizations of culture. The significant reforms that ushered the Army into an all-volunteer force required the creative management of both people and weapon acquisition, and the doctrine and organizational acumen to leverage the training of people with advanced weaponry. Furthermore, with the Cold War in decline, the changing global security environment required resourceful administration to communicate the importance of retaining the proper force structure for the Army while also maintaining a high quality of doctrine, force mixture, recruiting and training in the face of reduced budgets, manpower, and the widespread expectations of a "peace dividend."<sup>68</sup> The Guardian convention, with its rules, principles, and appeals for predictable outcomes for certain victory, was a near second in

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<sup>67</sup> Linn, *The Echo of Battle*, 201, 205, 200.

<sup>68</sup> Linn, *The Echo of Battle*, 204–205, 208–211, 223, 224.

importance during this period for the Army.<sup>69</sup> Finally, the sway of the Heroes during this period was a distant third to the Managers and Guardians. However, their influence could never be taken for granted. Despite the dominance of the bureaucratic methods of the Managers and Guardians in the Army, they tended to communicate in the language of the Heroes, where prudent administration and principles was often wrapped in the semantic mantle of the Hero's warrior ethic.<sup>70</sup>

While Linn's categorizations are considered as artificially discrete classifications within the amalgamation of what is the Army's culture, one can appreciate the distinctive conventions that form the constitutive schema of the institution. These patterns of thought created a shared understanding among soldiers, which shaped common beliefs about the preferential conduct of warfare within the Army. At different times in the U.S. Army's history, the various conventions exerted their influence on the other conventions to dominate the institutional culture. In such cases, and particularly during the period in which the post-Vietnam reforms took place, debate and disagreement over the future was substantial and vigorous.<sup>71</sup> But mostly Guardians, Heroes, and Managers simply blended their conventions to form a harmonious consensus that legitimized Army preferences in a comprehensible manner in the face of an uncertain environment. Ultimately, Linn suggests the Army's competing conventions eventually formed into a single logic of tradition that was recognized by its members and culturally supported.

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<sup>69</sup> Kitfield, *Prodigal Soldiers*, 209–214, 229, 302, 304; Linn, *The Echo of Battle*, 198–199, 204, 237–238.

<sup>70</sup> Linn, *The Echo of Battle*, 6–7, 218–219.

<sup>71</sup> Linn, *The Echo of Battle*, 203, 204–208, 214–216, 218, 219–220; Scales, *Certain Victory*, 7–8, 12–15, 25–27; Kitfield, *Prodigal Soldiers*, 192, 287, 305–306, 331, 367–368. Given the abundant evidence that competing conventions were struggling for dominance in the debates over reform and doctrine in the U.S. Army, one strains to understand the tepid and often adulatory findings made by Builder regarding Army culture in Builder, *The Masks of War*, 19–20, 33–34, 86–87, 138–142, 187, 188–193.

## **Synthesis: The Army Theory of Victory in Desert Storm**

In the period leading up to Operation Desert Storm, the U.S. Army had a broad regulatory imperative to provide land combat and service forces, to include organic aviation, to achieve national-security objectives. These imperatives flowed largely from the National Security Act, its amendments, and DODD 5100.01. These documents stipulated the Army's primary functions. It could not subvert them, although it could still shirk certain missions given the broadness and lack of precision in its regulatory mandates. However, clear subversion, and even shirking was subject to the sanction of punishment via the logic of consequence. On the other hand, given the Army's interdiction mission was a collateral, rather than a primary function, the service was constrained by directive from developing a robust set of capabilities that would be redundant to the Air Force's primary function of support for the Army with close air support and air interdiction of enemy land forces.<sup>72</sup> This constraint did not, however, preclude the Army from developing its organic aviation capability sufficiently for its primary function "to defeat enemy land forces and to seize, occupy, and defend land areas," which is why close combat attack was a distinctive Army mission from the Air Force's close air support.<sup>73</sup>

The normative pillar of the Army theory of victory prioritized strategies of annihilation over attrition. The imperative for annihilation in the U.S. Army involved constantly seeking positional advantage via maneuver, offensive initiative, and decisiveness. Not to seek the defeat of the adversary via annihilation was loathsome to the Army's logic of appropriateness. The alternative of attrition is seen as wasteful both in terms of blood and treasure. This imperative was built on a long and

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<sup>72</sup> Johnson, *Learning Large Lessons*; Kurtz and Crerar, "Military Roles and Missions," 33–38, 45–51; Eilon et al., "Evolution of Department of Defense Directive 5100.01," 12–13.

<sup>73</sup> Collins, "Roles and Functions of U.S. Combat Forces," 91.

well-documented history of continental warfare. The determination of what was appropriate was the result of recognition and the identification of its role in warfighting; therefore, the Army sought to emulate the great battles of history. Such battles should be decisive in accomplishing the political aims for war. These are imperatives because of the professional role the U.S. Army fills in serving as the nation's primary land force and the functional imperative of achieving victory with economy in blood and treasure.

Finally, during this period, the Army's culture promulgated the attributes of a force focused on a superior warrior ethos in its Heroes, with sufficient intellectual capacity to discern both the art and science of war in its Guardians, and the organizational acumen to manage both the human and materiel requirements of its Managers. Of the three artificially delineated categories, the Army preferred the acumen of the Managers to dominate its logic of tradition, although the artifacts of the Guardians and Heroes are not completely rejected in its holistic constitutive schema. The Army was clearly focused on winning wars efficiently with a smaller relative force that possessed a qualitative edge in both people and weaponry over its opponents. Like the Air Force, the Army had competing conventions within its force. While its preference for the Manager was at the forefront of the Army's culture, the Guardians suggested that the proper use of force should be rare if not overwhelming, and the Hero was characteristically suspicious of bureaucratic methods of leadership and viewed the social construction of technological warfare with an instrumentalist's doubt. This primarily managerial logic of tradition was self-imposed upon the Army from accession via acculturation through continued enculturation as its soldiers progressed through professional military education and increased rank and responsibility. Where rules and norms told soldiers *how* to win, the culture of the Army told them *what* victors do in its

comprehensive theory of victory. Ultimately, it is the theory of victory that told soldiers *why* they win and *how* they do.

The Army theory of victory captured in 1990 was not only a guide to action, but it also reflected a descriptive and existential reality to the soldiers who comprised the institution.<sup>74</sup> It pervaded its every action, and most importantly, shaped the structure, strategy, and processes of the Army. The Army theory of victory was how it coped with the inherent uncertainty of the world in which it is expected to win, and therefore, like the other military services, it could not approach Iraq's invasion of Kuwait *tabula rasa*. Like the Air Force, the Army theory of victory did more than anticipate its future in Iraq, it determined its specific actions in response; more so, it sought to shape the U.S. response in a "negotiated environment."<sup>75</sup>

Through this negotiated environment the Army attempted to define or re-define military success in Operation Desert Storm. It also sought to accentuate its institutional relevance via "Certain Victory," and advocated the adoption of capabilities it determined essential to its critical tasks and essence via buffering or leveling. Furthermore, the Army used its theory of victory to shape the environment in order to revise the norms for recruitment, forge strategies for warfighting, and posture for the consolidation of the rewards of increased legitimacy via victory.<sup>76</sup> This analysis concludes that the Army theory of victory immediately prior to Operation Desert Storm encouraged the eminence of annihilation. The Army theory of victory, in contradistinction to the Air Force's theory, viewed an adversary's center of gravity as something that was to be controlled or defeated, rather than necessarily to be destroyed. Finally, the Army theory of victory, which was articulated in AirLand

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<sup>74</sup> Gray, *Modern Strategy*, 144.

<sup>75</sup> Allison and Zelikow, *Essence of Decision*, 170, 167.

<sup>76</sup> Allison and Zelikow, *Essence of Decision*, 170, 167.



Battle doctrine, had a distinct conviction not only of what was appropriate for land warfare, but also in how air warfare should support land warfare as well.

This theory of victory meets all three of Martel's requirements. It identifies *how* the Army's imperatives recognize its critical tasks and attributes. It also describes the extent to *how* its imperatives contribute to victory. Finally, it provides both imperatives and preferences for *what* Army attributes and critical tasks contribute to victory in a context that also makes summary judgments amongst the attributes and critical tasks of the other military services. By examining each of the regulatory, normative, and cultural-cognitive pillars of the Army, and teasing out their respective logics of action in consequence, appropriateness, and tradition, a clearer military means-ends chain that, in the institution's belief, best contributes to national security is identified as a collective rationality for action. In sum, this complex layering of concepts flow together to form the Army theory of victory immediate prior to Operation Desert Storm, and *why* soldiers believed what they did in that war was right.

## Chapter 5

### **The Role of Army and Air Force Theories of Victory in the Planning and Conduct of Operation Desert Storm**

*Air power and ground power render each other more lethal. Air menace can induce enemy ground forces so far to disperse and hide that they are unable to function effectively against massed friendly ground power. Ground menace, in turn, can be so threatening that enemy ground power has no option other than to concentrate and probably move and thereby expose itself to try and avoid destruction in land battle.*

- Colin Gray

American military success in Operation Desert Storm occurred roughly 75 years after the first blending of air and land forces. This blending developed in fits and starts, rather than in a smooth arc of progress. These fits and starts occurred not only because of disagreement in how the distinct modes of warfighting on the land and air differ, but also in how each proponent's distinctive beliefs about how the other should be conducted. It is in this constantly shifting improvement of joint warfare, with occasional backsliding, the services developed their constituent principles and modes of thought that translate into their theories of victory. This chapter will apply the theories of victory discussed thus far to the evaluation of Operation Desert Storm.

This chapter extends the previous analysis by specifying exactly *how* the two services saw things differently during the planning and conduct of Operation Desert Storm. The purpose is to investigate specific instances in which the Army and Air Force theories of victory differed about the planning and conduct of the war. This analysis focuses on the actions taken immediately before and during Desert Storm that reveal the expectations, reflexes, styles, and attitudes that

demonstrate *how* the Army and Air Force applied their distinctive theories of victory in an uncertain environment. Specifically, it highlights instances in which the interrelated regulatory requirements, normative imperatives, and cultural-cognitive self-perceptions of the Air Force and Army influenced planning for and conduct of Operation Desert Storm. It will also illuminate how these divergent theories of victory were blended into a single, reasonably coherent, effort to remove the Iraqis from Kuwait.

The analysis will proceed as follows: First, it will recapitulate the strategic context for Operation Desert Storm. Next, it will provide specific evidence for the influence of each service's theory of victory during the planning for the war. Then the chapter will marshal evidence for each service's theory of victory during the conduct of Operation Desert Storm. Finally, it will recapitulate and analyze the effectiveness of blending these disparate theories of victory into a successful outcome.

### **Preface: The Strategic Context for Operation Desert Storm**

Iraq's invasion of Kuwait in August 1990 was not merely a matter of pan-Arab imperialism and revolutionary aspirations gone awry. Rather, Saddam Hussein's decision to invade was made largely because of economic dislocation caused by an extremely expensive Iran-Iraq War. The eight-year war with Iran left Iraq with over 420,000 casualties, 120,000 deaths, and a foreign debt of over \$80 billion. Of this \$80 billion debt, Europe, the United States, and Japan held \$30 billion of it in short-term notes. Iraqi inflation and unemployment were on the rise, and the standards of living were slipping. Thus, Saddam had to paint the war as a strategic victory to shore up his internal hold on power.<sup>1</sup>

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<sup>1</sup> Alexander S. Cochran et al., *Gulf War Air Power Survey, Volume I: Planning and Command and Control (Part 1)*, ed. Eliot A. Cohen and Thomas A. Keaney, vol. 1, Gulf War Air Power Survey (Washington, D.C.: Department of the Air Force, 1993), 55–56; U. S. News & World Report, *Triumph Without Victory: The Unreported History of the Persian Gulf War*, 1st Edition (New York: Crown, 1992), 20.

This meant he had to find the soldiers returning home useful work within the Iraqi economy. The last thing Saddam needed was a war-hardened body of veterans becoming disillusioned with his leadership by returning to the nation unable to provide for their families. To do this, Saddam had to solve an economic crisis of epic proportions or risk a domestic perception of weakness. With over \$320 billion in infrastructure reconstruction necessary, in addition to its already substantial foreign debt, Iraq's \$13 billion in revenues per annum from its oil industry was insufficient.<sup>2</sup>

In light of these dire economic circumstances, Saddam turned to the Organization of Petroleum Exporting Countries (OPEC). Through negotiations, OPEC agreed to set oil production quotas to raise the oil price by restricting output. However, by early-1990, Kuwait and the United Arab Emirates (UAE) were ignoring the production quotas and overproducing oil by almost two-million barrels per day. In March 1990, the relative glut of oil was driving oil prices down, thus further depressing Iraq's prospects for economic recovery and complicating Saddam's personal stakes for retaining power. In July 1990, at a coordination meeting of the Gulf Oil Ministers, Kuwait and the UAE finally relented and agreed to follow their production quotas, but by then much economic damage had already been incurred by Iraq. Saddam had little faith in the agreement's lasting the test of time. Thus, on 15 July 1990, he directed a military buildup on the border with Kuwait.<sup>3</sup>

The initial Iraqi buildup in late-July 1990 included 120,000 troops, including eight Republican Guard divisions and 1,000 tanks. While the pre-invasion Iraqi oil revenues barely topped \$13 billion, the tiny Kuwaiti

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<sup>2</sup> Lawrence Freedman and Efraim Karsh, *The Gulf Conflict, 1990-1991: Diplomacy and War in the New World Order*, First Edition (Princeton, N.J: Princeton University Press, 1993), 39-40; Cochran et al., *Gulf War Air Power Survey, Volume I (Part 1)*, 1:56; Norman Friedman, *Desert Victory: The War for Kuwait*, 1st Edition (Annapolis, Md: Naval Institute Press, 1991), 30-33.

<sup>3</sup> Freedman and Karsh, *The Gulf Conflict, 1990-1991*, 40-41, 45-50.

nation controlled over \$208 billion in financial assets, in addition to it holding almost 20% of the world's proven oil reserves. Moreover, capturing Kuwait offered enhanced access to the sea by expanding Iraq's coastline almost ten-fold.<sup>4</sup> The appeal of increasing their own wealth with that of Kuwait's had important practical value to Iraq, but there were also other considerations. Lawrence Freedman and Efraim Karsh suggest Saddam saw an opportunity to cast himself as the liberator of Kuwait to internal Iraqi audiences, while also gaining a decisive grip over the international oil market to boost his prestige in the Arab world.<sup>5</sup> By the time Saddam completed the 2 August 1990 invasion of Kuwait, the Iraqi army and Republican Guard would approximate 25 divisions, which wielded 140,000 troops and over 1,800 tanks against a 16,000-strong Kuwaiti army. Another approximately 30,000 National Guard were in reserve and not fully mobilized.<sup>6</sup> Eventually the Iraqi force would reinforce their gains in Kuwait to number between 300,000 and 623,000 troops.<sup>7</sup>

Saddam's motivation for invading Kuwait was primarily oriented upon shoring up his internal security, and his assessment dismissed the likelihood of a strong external response to his invasion.<sup>8</sup> Saddam failed to account for the United States' long-standing national policy, established since 1939, to protect unrestricted access to oil, along with its military contingency plans to support this policy in the Middle East.<sup>9</sup> The American policy would take on added importance in 1968 when Great Britain began to withdraw military forces from the region.<sup>10</sup> While

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<sup>4</sup> Cochran et al., *Gulf War Air Power Survey, Volume I (Part 1)*, 1:59.

<sup>5</sup> Freedman and Karsh, *The Gulf Conflict, 1990-1991*, 62.

<sup>6</sup> Cochran et al., *Gulf War Air Power Survey, Volume I (Part 1)*, 1:60; Freedman and Karsh, *The Gulf Conflict, 1990-1991*, 67; Friedman, *Desert Victory*, 36-38; U. S. News & World Report, *Triumph Without Victory*, 31.

<sup>7</sup> U. S. News & World Report, *Triumph Without Victory*, ix.

<sup>8</sup> Friedman, *Desert Victory*, 27.

<sup>9</sup> Cochran et al., *Gulf War Air Power Survey, Volume I (Part 1)*, 1:17, 21-41.

<sup>10</sup> U. S. News & World Report, *Triumph Without Victory*, 43-47.

America's was an ambiguous policy to be sure, in the face of the naked aggression taken by Iraq to usurp control of over 20% of the world's proven oil reserves, the United States was able to secure the tacit cooperation of the Soviet Union and thus garner a rapid response in several Security Council resolutions from the United Nations.<sup>11</sup> On 5 August 1990, the United States received an official invitation from King Fahd bin Abdulaziz Al Saud to begin its deployment of land and air forces to defend the kingdom of Saudi Arabia from Iraqi forces. U.S. Central Command Operations Plan 1002-90 served as the framework for Operation Desert Shield, which would officially begin on 7 August 1990, but the planning for the offensive to eject Iraq from Kuwait began in earnest almost simultaneously and would eventually become known as Operation Desert Storm.<sup>12</sup>

### **Theories of Victory in the Planning of Operation Desert Storm**

In the early hours of the deployment of forces to defend Saudi Arabia from Iraqi forces, President George Bush outlined his four national objectives for what would, in time, define the goals of Operation Desert Storm. These objectives included:

1. Securing the immediate, unconditional, and complete withdrawal of Iraqi forces from Kuwait;
2. Restoration of the legitimate government of Kuwait;
3. Assurance of the security and stability of the Persian Gulf region; and,
4. Protection of American lives.<sup>13</sup>

In addition to these objectives, the president also imposed several specific restraints and constraints on the planners. The former outlined what the military *could not* do, while the latter directed what the military

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<sup>11</sup> Freedman and Karsh, *The Gulf Conflict, 1990-1991*, 73, 79-84.

<sup>12</sup> U. S. News & World Report, *Triumph Without Victory*, 82-86; Freedman and Karsh, *The Gulf Conflict, 1990-1991*, 92-94; Richard T. Reynolds, *Heart of the Storm: The Genesis of the Air Campaign Against Iraq* (Maxwell Air Force Base, Ala.: Air University Press, 1995), 15-16; Putney, *Airpower Advantage*, 27-29.

<sup>13</sup> Cochran et al., *Gulf War Air Power Survey, Volume I (Part 1)*, 1:83.



*must* do. There were five restraints. First, noncombatant Iraqi casualties were to be held to a minimum. Second, the laws of armed conflict had to be observed in the protection of cultural and religious structures from military attack. Third, destruction of the Iraqi economy had to be minimized to ensure postwar recovery would be minimal. Fourth, the hostages held by Iraq had to be protected to the extent possible. Finally, although strategic communications to the Iraqi regime were to remain ambiguous on this point to create a deterrent against its use of weapons of mass destruction, nuclear weapons would not be used.<sup>14</sup> The constraints, which developed as planning unfolded, dictated that the offensive to liberate Kuwait should seek both quick and decisive results and the Iraqi Scud ballistic missiles were to be suppressed sufficiently to obviate the Israeli's entry into the war – a contingency with the potential to fracture the coalition.<sup>15</sup>

These objectives, restraints, and constraints reflected the theories of victory of both the Air Force and Army in various ways. For example, the guidance of seeking a quick, decisive outcome reflected the normative imperative championed by Army Guardians and Managers. It also played to the autonomously decisive cultural preference for the Air Force theory of victory, while placing strict limits on any normative possibility of economic punishment against Iraq's infrastructure. Furthermore, both services interpreted the political guidance for the need of overwhelming force along lines of their distinctive theories of victory, as ambiguity in the guidance equally supported the normative aspects of the Army's imperative for annihilation and the Air Force's imperative for strategic paralysis and attrition.<sup>16</sup> This chapter will now assess several

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<sup>14</sup> Cochran et al., *Gulf War Air Power Survey, Volume I (Part 1)*, 1:90.

<sup>15</sup> Cochran et al., *Gulf War Air Power Survey, Volume I (Part 1)*, 1:101.

<sup>16</sup> Cochran et al., *Gulf War Air Power Survey, Volume I (Part 1)*, 1:101–102; Scales, *Certain Victory*, 51–54, 59.

examples of the Air Force theory of victory at work in the planning of Operation Desert Storm.

**Instant Thunder.** The planning for what would become Operation Desert Storm had a very peculiar start. Given the Vietnam experience, and the perception that the Vietnam War was micromanaged from Washington D.C., the initial plan called Instant Thunder arose from the Checkmate section from the plans division of the Air Staff. General Norman Schwarzkopf, the Commander-in-Chief of U.S. Central Command (CINCCENT), was unsatisfied with his own staff's responses to his question of how to influence Iraqi behavior should he be directed to retaliate against an invasion of Saudi Arabia. In addition, Schwarzkopf delegated to his air component commander, the Air Forces Central Command (CENTAF) Commander, Lieutenant General Charles "Chuck" Horner, the responsibility to lead and direct the initial deployment of joint forces to Saudi Arabia. Ultimately, Schwarzkopf was left with the odd predicament of requesting planning support from the staff of the Joint Chiefs of Staff who, in turn, deferred to the Air Staff for developing *retaliatory* options against Iraq. Fortunately, the Checkmate section of the Air Staff, led by Colonel John Warden, was already working on air campaign options to *eject Iraqi forces from Kuwait*.<sup>17</sup>

On 10 August 1990, the Checkmate section briefed the Instant Thunder concept to General Schwarzkopf. Instant Thunder sought to avoid the gradualism employed in the Vietnam operation codenamed Rolling Thunder in both name and deed. The Checkmate planners fashioned four military objectives from President Bush's aforementioned national objectives. The military objectives outlined in Instant Thunder were as follows:

1. Force Iraqi withdrawal from Kuwait;

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<sup>17</sup> Cochran et al., *Gulf War Air Power Survey, Volume I (Part 1)*, 1:108–109; Gordon and Trainor, *The Generals' War*, 75–77, 79–90; Putney, *Airpower Advantage*, 43–46, 50–55.

2. Degrade Iraq's offensive capability;
3. Secure oil facilities; and,
4. Render Saddam ineffective as a leader.<sup>18</sup>

These objectives sought to isolate the Iraqi forces from its leadership in Baghdad, disarm the Saddam regime sufficiently to make it impotent, and ultimately to impose enough cost upon Iraq to compel its withdrawal from Kuwait. Instant Thunder sought to do this through an economy of force mechanism by 1) pitting the advantages of the United States military against Iraqi disadvantages and 2) by shielding its disadvantages from the Iraqi strengths. Furthermore, Instant Thunder aimed to make it clear that Saddam Hussein's political regime was its primary target, not the Iraqi people. The nascent air campaign plan also sought to destroy key Iraqi targets selectively, so as to avoid large, indiscriminate levels of destruction. Finally, Instant Thunder sought to minimize civilian casualties, collateral damage, and U.S. losses.<sup>19</sup>

General Schwarzkopf applauded the work done by the Checkmate planners. But there were clear differences in the object for the planning. Schwarzkopf believed the air planners had provided him with a sufficient campaign framework to *retaliate* against Saddam should he choose to attack Saudi Arabia. But he did not see it as a mechanism to bring about Iraqi withdrawal from Kuwait. The Checkmate planners, however, believed Instant Thunder represented the best and most economical way to compel the Iraqi regime to withdraw from Kuwait. In what would become a point of further dissonance between the Checkmate planners and the CINCCENT, Schwarzkopf did not see the strategic air campaign outlined by Warden and Checkmate as a "war winning" plan. The conceptualization shared by Schwarzkopf and Warden overlapped with the need for a series of strikes that would attack high-value, political, economic, and military targets in Iraq, but the commonality in

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<sup>18</sup> Cochran et al., *Gulf War Air Power Survey, Volume I (Part 1)*, 1:109.

<sup>19</sup> Putney, *Airpower Advantage*, 51.

conception ended there. Instant Thunder was, at least in Warden's mind and probably the minds of his planners, *the solution* to the political problem of Iraq holding Kuwaiti terrain rather than merely *a military option* in case Saddam rolled his forces into Saudi Arabia.<sup>20</sup> Despite numerous instances of clarification in the 10 August briefing of Schwarzkopf and other iterations of the Instant Thunder briefings to follow, this dissonance would persist until Warden's influence on the planning of the air campaign became diminished.

This dissonance bears some further consideration. Edward Mann described the CINCENT's initial reception in the following manner, "[Schwarzkopf] was not sure that [airpower] alone would achieve the president's objectives. Rather, he saw the plan either as a possible retaliatory measure in the event Hussein did something heinous or as Phase 1 of a much larger offensive campaign designed to throw the Iraqis out of Kuwait. The Air Staff planners did not really care why he liked Instant Thunder, for them, it was enough that he did."<sup>21</sup> Diane Putney described the dissonance in the following manner, "Warden [could] not explain to his staff that the CINCENT approved of Instant Thunder for reasons different from those that were driving him, because he himself did not fully understand the commander's rationale."<sup>22</sup> The dissonance that would only become more pronounced later serves as yet another example of divergent theories of victory at work. While the CINCENT did not completely agree with Warden's rationale for Instant Thunder, at this point, Schwarzkopf found sufficient utility in the nascent plan for his own purposes. And he would eventually turn the plan over to his air component commander to make it serve his own vision. In the interim, however, Schwarzkopf insisted General Colin Powell, Chairman, Joint

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<sup>20</sup> Reynolds, *Heart of the Storm*, 53–57; Mann, *Thunder and Lightning*, 42; Putney, *Airpower Advantage*, 57–59.

<sup>21</sup> Mann, *Thunder and Lightning*, 42.

<sup>22</sup> Putney, *Airpower Advantage*, 59.

Chiefs of Staff (CJCS) and the principal advisor to the President on military matters, receive the Instant Thunder briefing the next day.<sup>23</sup>

On 11 August 1990, only eight days after the Iraqi invasion of Kuwait, Colonel Warden and the Checkmate team briefed the CJCS on Instant Thunder. The Instant Thunder concept briefed to Powell retained all of the patent focus upon destruction of the centers of gravity that comported to the Air Force theory of victory, which brought an economy of force instrument against strategic targets as logically appropriate. The Chairman, who according to Michael Gordon and Bernard Trainor was an airpower skeptic, cut right to what he saw as a substantial shortfall of the Instant Thunder plan: the lack of counterland targeting of Iraqi forces in Kuwait.<sup>24</sup> It was in regard to this that the Chairman famously remarked to Warden that he wanted to “destroy the Iraqi army on the ground. I don’t want them to go home. I want to leave smoking tanks as kilometer posts all the way to Baghdad.”<sup>25</sup>

Powell perceived the Air Force theory of victory presented in the Instant Thunder plan, with its focus upon destruction of centers of gravity, and went straight to the heart of the problem with it. Warden’s plan assumed air strikes alone could compel Iraq to leave Kuwait but did not include further options in case airpower failed to achieve this objective. Powell was less satisfied with Warden’s worst-case outcome than Schwarzkopf was the day prior, which suggested the Iraqi forces would eventually leave simply because Iraq would lack the economy or sustainment to maintain their position. In effect, Warden suggested they could and would just walk home. Powell demurred and stated “I can’t

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<sup>23</sup> Gordon and Trainor, *The Generals’ War*, 81–82; Putney, *Airpower Advantage*, 59; Thomas A. Keaney and Eliot A. Cohen, *Revolution in Warfare? Air Power in the Persian Gulf*, 1st edition (Annapolis, Md: Naval Institute Press, 1995), 29–30.

<sup>24</sup> Gordon and Trainor, *The Generals’ War*, 83; Putney, *Airpower Advantage*, 45, 62–63.

<sup>25</sup> As quoted in Reynolds, *Heart of the Storm*, 72.

recommend only the strategic air campaign to the President.”<sup>26</sup> Ultimately, Powell correctly perceived what Warden did not: while Instant Thunder was sufficient as a means of retribution against Iraq should it attack Saudi Arabia, or as a part of a sequence in a greater joint campaign, it was insufficient to meet the president’s objectives and deliver victory on its own in the given context.<sup>27</sup> This would be the first time Warden and Checkmate would meet stiff resistance in their expression of the Air Force theory of victory via Instant Thunder, but not the last.<sup>28</sup>

Warden would brief and further refine the Instant Thunder concept several more times between 11 and 20 August when he finally briefed Horner, the CENTAF commander and Joint Force Air Component Commander (JFACC) for CINCCENT. In the interim iterations, he would also separately brief the Chief of Naval Operations, Commandant of the Marine Corps, Air Force Chief of Staff, Secretary of the Air Force, and even the CINCCENT once more to garner acceptance for the plan.<sup>29</sup> Horner, already embittered by the uninvited involvement of the Air Staff in developing a plan on his behalf, took the Instant Thunder briefing on 20 August 1990.<sup>30</sup> Warden, more emboldened than ever, described Instant Thunder to Horner as a war-winning plan that would compel the Iraqis to abandon their gains in Kuwait. Furthermore, Warden failed to indicate the CINCCENT viewed Instant Thunder merely as a retaliatory

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<sup>26</sup> Putney, *Airpower Advantage*, 52, 62.

<sup>27</sup> The concept that Instant Thunder could be flexibly incorporated into a broader campaign to expel Iraqi forces from Kuwait was to come about after Warden’s second briefing to the CINCCENT on 17 August 1990. Only after that point would General Schwarzkopf begin to create the scaffolding for what would ultimately become the fully phased and truly *joint* campaign plan that was to become Desert Storm. However, neither Schwarzkopf nor his air component commander, General Charles Horner, would ever become convinced the strategic air campaign that Instant Thunder laid the foundation for would be decisive on its own merits.

<sup>28</sup> Reynolds, *Heart of the Storm*, 71–77.

<sup>29</sup> Putney, *Airpower Advantage*, 72–87.

<sup>30</sup> Cochran et al., *Gulf War Air Power Survey, Volume I (Part 1)*, 1:126; Reynolds, *Heart of the Storm*, 121; Putney, *Airpower Advantage*, 125–126.



option at this point. Perhaps he made this omission because he did not understand this point either. Nor did Warden adequately address the previously pointed out shortcomings of the Instant Thunder plan, which completely ignored attacking the growing Iraqi force in Kuwait.<sup>31</sup>

Ultimately, the war-winning plan via airpower alone that Warden and his Checkmate staff originally intended died an ignominious death in a Riyadh conference room at the hands of Lieutenant General Horner.

The Air Force theory of victory would have to become something bigger than Warden's mere strategic paralysis and overwhelming shock to compel the Iraqi army from its present position in Kuwait.<sup>32</sup> Here, a fissure in the Air Force theory of victory was exposed in the confrontation between Horner and Warden. Warden, despite his forward-thinking theories on operational art and strategic paralysis, was still captured by a bygone belief in victory through airpower alone. Horner, a product of Tactical Air Command, in which he commanded at multiple levels the integration of forces with the U.S. Army, was more persuaded of the utility of the joint warfighting concept known as AirLand Battle. Despite the concurrence that Warden had received from Air Force leadership regarding Instant Thunder as an independent war-winning plan, Horner believed otherwise and had the authority as the JFACC to choose a new path. In doing so, Horner set the Air Force theory of victory on a new and more adaptive path for Operation Desert Storm.

While Instant Thunder did not survive as a war-winning air campaign, it was eventually incorporated into General Schwarzkopf's operational plan in Desert Storm. On 25 August 1990, General Schwarzkopf formally outlined CENTCOM's plan of four phases as follows:

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<sup>31</sup> Cochran et al., *Gulf War Air Power Survey, Volume I (Part 1)*, 1:127–128; Mann, *Thunder and Lightning*, 60–61.

<sup>32</sup> Putney, *Airpower Advantage*, 130–133; Keaney and Cohen, *Revolution in Warfare*, 31; Gordon and Trainor, *The Generals' War*, 92–94.

1. Strategic Air Campaign
2. Air Supremacy in the Kuwait Theater of Operations
3. Battlefield Preparation
4. Ground Offensive Campaign<sup>33</sup>

The first phase of the CENTCOM plan, as briefed to General Powell by General Schwarzkopf, was principally the Instant Thunder concept with the addition of targets that would assuage the concerns of Lieutenant General Horner and others over Iraqi ground forces in Kuwait.<sup>34</sup> The second phase sought to establish air superiority over Kuwait. The third phase sought on an unprecedented level of attrition of Iraqi ground forces. The fourth, and final, phase would include a then-nascent ground campaign meant to expel Iraqi forces from Kuwait.<sup>35</sup> On 26 August 1990, Lieutenant General Horner directed Brigadier General Buster Glosson and Lieutenant Colonel David Deptula to cease using the term Instant Thunder to describe the first phase of CENTCOM's developing plan.<sup>36</sup> Despite the change in name, the first phase of the air campaign plan would largely share the same attributes, albeit with a significant, directed change. The significant change to the Phase I Strategic Air Campaign would come at the direction of Schwarzkopf to

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<sup>33</sup> Cochran et al., *Gulf War Air Power Survey, Volume I (Part 1)*, 1:148. The titles of the phases changed throughout the development of the Desert Storm operation plan, but were largely variances along the theme presented here as one might find them in December of 1990. For example, in January 1991, Phase Two was changed to read air superiority rather than air supremacy, but for all practical purposes the CENTCOM staff used the terms interchangeably.

<sup>34</sup> The CENTCOM Operation plan provided CENTAF the following guidance regarding Phase I: "[Phase I will] be conducted against targets in Iraq focusing on enemy centers of gravity. The air campaign will progressively shift into the [Kuwaiti Theater of Operations] to inflict maximum enemy casualties and reduce the effectiveness of Iraqi defenses and isolate the [Kuwaiti Theater of Operations]....[Conduct] the strategic air campaign phase to destroy Iraq's strategic air defense, aircraft/airfields; chemical, biological and nuclear capability; leadership targets; command and control systems; RGFC forces; telecommunications facilities; and key elements of the national infrastructure such as critical [lines of communication], electrical grids, petroleum storage, and military facilities, cut key bridges, roads and rail lines to block withdrawal of RGFC, cut bridges, roads and rail lines to block reinforcement and/or resupply of Iraqi forces from the west and isolate Iraqi forces in the [Kuwaiti Theater of Operations], and to provide air support (CAS) throughout all phases."

<sup>35</sup> Keaney and Cohen, *Revolution in Warfare*, 31, 39–43.

<sup>36</sup> Gordon and Trainor, *The Generals' War*, 96.

add Republican Guard targets to the Iraqi army targets that Horner had already directed. This change made apparent the divergence in how the air component and the CINCCENT viewed appropriate centers of gravity. This change created an increased draw on resources, limited the “strategy of choices” that was more favorable to the Air Force theory of victory, and upset the almost complete autonomy airmen had exercised in setting priorities for the air campaign up to this point.<sup>37</sup>

Despite the significant changes in Operation Desert Storm’s strategic air campaign priorities, the Air Force theory of victory still quite naturally dictated the actions of CENTAF. At times, these disparate influences were conflicted. The Air Force regulatory pillar dictated its imperative for functions and unity of command under the direction of the CINCCENT, which included his prioritization and guidance on weight of effort. Yet the normative pillar of the Air Force theory of victory prioritized “strategic” missions within the strategic air campaign. The authors of the *Gulf War Air Power Survey* would conclude that the first phase of the Desert Storm campaign was where the CENTAF planners would spend majority of their time preparing for war.<sup>38</sup> This is yet another indication of the Air Force’s theory of victory in action during planning.

Furthermore, the first three phases of Desert Storm leaned upon the imperative of attrition that airmen hoped would make land combat unnecessary, if only given enough time and patience.<sup>39</sup> Finally, the Air Force’s cultural-cognitive preferences were coupled to the development of the strategic air campaign in which the plans reflected a clear desire to achieve autonomous decisiveness and further reinforce the idea of

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<sup>37</sup> *Conduct of the Persian Gulf War: Final Report to Congress*, vol. 1 (Washington, D.C.: Principal Deputy Under Secretary for Strategy and Resources, 1992), 126–130.

<sup>38</sup> Cochran et al., *Gulf War Air Power Survey, Volume I (Part 1)*, 1:xiv.

<sup>39</sup> In Cochran et al., *Gulf War Air Power Survey, Volume I (Part 1)*, 1:171, Glosson is quoted extensively to drive home this point.

independent airpower. The planning of Desert Storm serves as an ideal case in which airmen sought to shape the negotiated environment by means of their distinctive theory of victory. It clearly influenced the perceptions of Generals Schwarzkopf and Powell and shaped the decisions the National Command Authority considered for how to respond to the Iraqi invasion of Kuwait. The authors of the *Gulf War Air Power Survey* underscore the importance of the Air Force theory of victory in Desert Storm as follows:

What was most central to the Desert Storm air campaign plan was the planners' own vision of success, their own vision of victory. By concentrating all their efforts toward the first phase of the overall theater campaign plan, they implicitly stated their vision that air power alone would prevail and victory would come within the first week. Just how realistic that conviction was [sic] to be tested in the hostile and dark skies over Iraq on January 17, 1991.<sup>40</sup>

**The Jedi Knights.** The planning for the fourth phase of Operation Desert Storm, the offensive ground campaign, was undertaken once sufficient assurances were in place that coalition forces could defend Saudi Arabia from Iraq. General Schwarzkopf established the campaign framework on 25 August, but it was not until 18 September when four graduates of the U.S. Army School of Advanced Military Studies (SAMS) were brought in to CENTCOM to augment the planning for the offensive ground campaign. It was in this effort, later called the Special Plans Group, that these planners would earn the nickname of "Jedi Knights."<sup>41</sup>

Schwarzkopf's initial guidance provided to the Jedi Knights on 18 September was to formulate, in the most economical manner possible, a ground campaign meant to force the Iraqi forces from Kuwait. However, the Jedi Knights were obligated to deal with a one particularly confounding constraint: they were instructed to develop their campaign

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<sup>40</sup> Cochran et al., *Gulf War Air Power Survey, Volume I (Part 1)*, 1:232.

<sup>41</sup> Atkinson, *Crusade*, 107–108; Gordon and Trainor, *The Generals' War*, 123–124; Swain, *Lucky War*, 74–75.

with the forces slated to be allocated to the CINCCENT at the time, which forced the group to plan with the presumed friendly order of battle for November 1990. This American force allocation, in addition to coalition forces already present, merely consisted of a single corps comprising of an airborne and air assault divisions, an armored cavalry regiment, a combat aviation brigade, and Marine Expeditionary Force (MEF), and a Marine Expeditionary Brigade (MEB) afloat in the Persian Gulf.<sup>42</sup>

This constraint squashed much of the Jedi Knight's flexibility for developing courses of action. But true to the Army theory of victory, the group sought to avoid a full frontal attack on the Iraqi positions across the berm in Kuwait. According to Rick Atkinson, given the outlay of Iraqi forces, the Jedi Knights would have preferred to attack their adversary's western flank. However, the single corps available to CENTCOM did not provide enough forces to fix the Iraqis in position to accomplish a flanking maneuver. In fact, any possible flanking maneuver would require nearly all the forces available to CINCCENT, leaving inadequate reserves, which would provide the Iraqi forces an opportunity to cut off and isolate the friendly flanking force from reinforcement and sustainment.<sup>43</sup> Without a better force ratio and vastly increased logistical capacity, the logic of appropriateness from the Army theory of victory would become secondary to the logic of consequences. The Army would do as it was ordered, and only if ordered, but such compliance would conflict with what could realistically be hoped to be achieved.

On 6 October 1990, without relief from these constraints, the Jedi Knights recommended to General Schwarzkopf a "high risk" plan that would use a penetration directly into the Iraqi lines in Kuwait from Saudi Arabia. This penetration would occur in the western part of Kuwait, just

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<sup>42</sup> Atkinson, *Crusade*, 108; *Conduct of the Persian Gulf War, Vol 1*, 1:313–314; Swain, *Lucky War*, 76–77.

<sup>43</sup> Atkinson, *Crusade*, 108–109.

east of the Wadi al-Batin, which marked a natural boundary between Iraq and Kuwait. Several assumptions were implicit in the proposed course action: first, despite lacking the capability to outflank the Iraqis, it was possible, if not improbable, to maintain a relatively high level of offensive initiative via a penetration of the Iraqi lines that refused battle until reaching the high-ground that overlooked the northwestern side of Kuwait City. Second, in an assumption that would remain in the Desert Storm campaign plan even after the manning constraint was relieved, the air offensive would have to attrite the Iraqi forces in the Kuwaiti Theater of Operations by at least 50% before the penetration could commence. Third, accurate and rapid intelligence on the disposition the enemy order of battle would be critical to the operational success of the effort. In the mind of the CINCCENT, just as there was in the minds of the Jedi Knights, there were strong reasons to doubt the likelihood of each of those assumptions.<sup>44</sup> Schwarzkopf was unenthusiastic about the “single corps plan” and asked his Jedi Knights what they would need to reduce operational risk and improve the probability of success. The planners responded that another corps-sized force would be required. It was here the “Left Hook” plan began to form.<sup>45</sup>

The Jedi Knights’ course of action was reluctantly briefed to the CJCS and the president on 10-11 October 1990. The CINCCENT did not feel that the ground plan, as it stood at this embryonic stage, was sufficient to meet the president’s objectives; however, the CJCS insisted it be briefed because the air campaign was also being briefed.<sup>46</sup> The briefings highlighted the stark differences in the states of readiness for war between CENTCOM’s air component and its land component. The Air Force believed it had sufficient assets in theater to conduct its

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<sup>44</sup> *Conduct of the Persian Gulf War, Vol 1*, 1:315; Swain, *Lucky War*, 78–81; Atkinson, *Crusade*, 110.

<sup>45</sup> *Conduct of the Persian Gulf War, Vol 1*, 1:315; Atkinson, *Crusade*, 110; Gordon and Trainor, *The Generals’ War*, 127.

<sup>46</sup> Putney, *Airpower Advantage*, 219.



strategic air campaign, which was only Phase I of the Desert Storm construct, but the Army clearly lacked sufficient resources to expel the Iraqi forces within the constraints and restraints it had been given. The CINCCENT's briefers provided Schwarzkopf's dim assessment of the plan, as it was, along with several caveats and disclaimers. Those who received the briefing, however, overlooked these clear caveats and disclaimers. Thus, the briefings resulted in a mixed blessing for the CINCCENT. Despite the ample warnings provided, the briefing shook the confidence of the CJCS and president's national-security team in General Schwarzkopf. But on the positive side, the briefings created a sufficient sense of crisis to ensure deployment of a greater allocation of both land and air forces for CENTCOM. Schwarzkopf would get his second corps. In fact, he would get more than that, as his air and land forces would almost double as result of the briefings. With the significant increase in the number of land forces available to them, the Jedi Knight's plan would further evolve.<sup>47</sup>

Over the next two months, the offensive ground campaign would be transformed into what would become the Left Hook. This plan would eventually become fleshed out in a manner that incorporated all of the normative imperatives of the Army theory of victory: maneuver and positional advantage, offensive initiative, and decisiveness. Given the increased resources, the Jedi Knights were freed from their previous constraints and set into motion a plan to annihilate the Iraqi forces in Kuwait and southern Iraq. According to the Congressional report on the planning and conduct of Desert Storm, the Left Hook aimed "to physically and psychologically isolate the Iraqi forces in Kuwait," which is a clear nod to annihilation.<sup>48</sup> Furthermore, with its use of overwhelming

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<sup>47</sup> Freedman and Karsh, *The Gulf Conflict, 1990-1991*, 204-208; Atkinson, *Crusade*, 110-113; Gordon and Trainor, *The Generals' War*, 128-141, 153-157; *Conduct of the Persian Gulf War, Vol 1*, 1:315-316.

<sup>48</sup> *Conduct of the Persian Gulf War, Vol 1*, 1:317.

force, audacity, and attention to detail, the Left Hook plan equally satisfied the Army's Guardian, Hero, and Manager cultures, although each would be used in different ways as the plan progressed. Evidence of these mechanisms at play within the Army theory of victory are demonstrated by how favorably the plan resonated with all of Schwarzkopf's corps and division commanders who were briefed on 14 November. Ultimately, under the new force allocations, the Army theory of victory became more apparent in the campaign goal to annihilate the Iraqi Republican Guard. After 14 November, planning was largely turned over to subordinate echelons of command for amplification and modification. The Left Hook plan had arrived.<sup>49</sup>

Like the meandering way in which the air campaign was developed, the ground campaign changed as it matured. Unlike the air campaign however, which was forced to deviate from the Air Force theory of victory, the evolution of the ground campaign aligned well with the Army theory of victory with each step forward. The Army theory of victory and its supporting pillars were apparent in various aspects of the development of the ground campaign. First, the imperatives of the Army's normative pillar dictated that it would provide the most economical plan for action possible with the resources provided. The normative imperatives of the Army theory of victory also guided CENTCOM's decision making to seek the best outcome within the given constraints. This was especially apparent in the initial single-corps 'up the middle' penetration proposal, in which annihilation could not be resourced sufficiently to be feasible. Nevertheless, the Jedi Knights still sought positional advantage and offensive initiative where they could find it. Finally, each of the cultural-cognitive aspects of the Army theory of victory was satisfied by the eventual development of what would become the Left Hook.

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<sup>49</sup> Putney, *Airpower Advantage*, 245–249; Swain, *Lucky War*, 88–93; Freedman and Karsh, *The Gulf Conflict, 1990–1991*, 284–288; Gordon and Trainor, *The Generals' War*, 147–152; *Conduct of the Persian Gulf War, Vol 1*, 1:87–91.

As a part of the whole, each of these pillars contributed to the strategic choice offered to commanders and policy makers in Desert Storm. Like the Air Force theory of victory, the Army theory of victory contributed to the negotiated environment used by strategic decision makers who directed and approved of the plans developed for Operation Desert Storm.

### **Theories of Victory in the Conduct of Operation Desert Storm**

In the transition between planning and execution, the theories of victory of both the Air Force and the Army took on a heightened role in shaping the negotiated environment. A theory of victory is not only powerful and pervasive within its own institution, but it also attempts to shape the actions of other institutions. This is important in the conduct of joint warfare, in which each component is expected to contribute its utmost toward achieving the joint force commander's objectives. The obvious implication is that in the rough negotiation involved in working out the blended conduct of joint warfare, the joint force must make sense of the additional friction resultant from blending unlike worldviews while fighting. This truth was evident in Desert Storm, and the divergence of the Army and Air Force theories of victory became especially apparent in the development of the Joint Target Coordination Board (JTCCB).

The creation of a JTCCB was an ad hoc development during Desert Storm to smooth the coordination between the land and air components. The command relationships of established by CENTCOM for Desert Storm made coordination between CENTAF and ARCENT especially difficult. This occurred for three reasons. First, the JFACC concept placing command of the majority of theater air assets under Lieutenant General Horner was still quite a new method of joint command and control; in fact, Desert Storm was the first war in which it was used. This created some uncertainty in terms of roles among the services

underneath the CINCCENT's operational control. Second, General Schwarzkopf retained the role of Joint Force Land Component Commander (JFLCC). This had the chilling effect of placing the other component commanders in an interesting predicament, where the logic of consequences would be in direct opposition to the logic of appropriateness should another component commander have a disagreement with the JFLCC, as he was also the CINCCENT and their superior. Third, and perhaps most importantly, Schwarzkopf's decision to serve both as the CINCCENT and the JFLCC also put subordinate command echelons within the JFLCC, particularly his corps commanders, at a distinct disadvantage when their requests for support from the JFACC were superseded or overruled by his guidance acting in his role of the CINCCENT.<sup>50</sup>

These basic coordination problems had their root in a structural rather than a functional cause. Nevertheless, they exacerbated the roughness of negotiations between the divergent Air Force and Army theories of victory in Desert Storm. This perception problem became particularly acute after the air campaign began on 17 January 1991 and increased with every passing day toward the launch of the offensive ground campaign. The close working relationship between the CINCCENT and the JFACC during the air campaign lacked transparency to the two Army corps commanders.<sup>51</sup> This had the further effect of breeding insecurity and destroying trust among the members of the joint team. As the ground offensive neared execution, the corps commanders displayed more and more concern at what they thought was a lack of effort on behalf of the JFACC to reduce the forces they would soon

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<sup>50</sup> Charles W. Johnson, "Joint Targeting and the Joint Target Coordination Board: Let's Fix the Current Doctrine!," May 1996, 19; Mann, *Thunder and Lightning*, 56; *Conduct of the Persian Gulf War, Vol 1*, 1:246.

<sup>51</sup> Richard B. Lewis, "Desert Storm -- JFACC Problems Associated With Battlefield Preparation" (Carlisle Barracks, PA: U.S. Army War College, April 15, 1993), 22; Scales, *Certain Victory*, 180-181.

oppose in battle.<sup>52</sup> One analyst described this perception in the following manner: “an opinion emerged amongst non-Air Force services that targeting was done according to the Air Force, for the Air Force.”<sup>53</sup>

The JFACC thus had a perception problem, which at its core was really a theory of victory problem. This perception problem can be attributed to several important considerations. First, the CINCCENT would often direct the employment of resources in ways conflicting with the corps commanders’ nominations. Sometimes this was done because of Schwarzkopf’s laser-like focus on the Republican Guard, to the exclusion of regular Iraqi army forces. Sometimes, especially as the ground offensive loomed closer, the CINCCENT overruled his corps commanders’ wishes because he wanted to maintain the element of surprise regarding the Left Hook and extensive preparation via air attack would both indicate to the Iraqis where the land offensive would take place and also give them an opportunity to react.<sup>54</sup>

Finally, feedback on battle damage from aerial attack was assigned to the ARCENT/G2; but the measurable criteria for the destruction of tanks, artillery, and fighting vehicles remained undefined. Furthermore, when the criteria were established by ARCENT, they seemed whimsical because they changed several times as the battlefield preparation unfolded. Thus, even if the corps commanders had properly nominated targets to the JFACC, the targets were validated as accurate, CINCCENT did not overrule it, *and* the Air Force attacked it with good effect, the judging of effects turned out to be more art than science, leaving the results to be hotly debated between the Air Force and Army. In such

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<sup>52</sup> Randolph P. Miller, “Joint Targeting Control, Compromise, or Coordination Board” (Newport, RI: Naval War College, February 7, 1997), 2; Lewis, “Desert Storm -- JFACC Problems Associated With Battlefield Preparation,” 22.

<sup>53</sup> Miller, “Joint Targeting Control, Compromise, or Coordination Board,” 3.

<sup>54</sup> Miller, “Joint Targeting Control, Compromise, or Coordination Board,” 2–3; Lewis, “Desert Storm -- JFACC Problems Associated With Battlefield Preparation,” 13–27; Johnson, “Joint Targeting and the Joint Target Coordination Board,” 23.

cases, the command and feedback structure Schwarzkopf established within CENTCOM and its components was woefully insufficient. As a result, the air component bore the brunt of the suspicion from the land component that its weight of effort was misplaced on its strategic air campaign.<sup>55</sup> These issues all became evident after the fact. But during Operation Desert Storm itself something had to be done before the interservice bickering got completely out of hand. The JTCB was the result.<sup>56</sup>

General Schwarzkopf approved the formation of the JTCB and delegated his authority to chair the board to the Deputy Commander-in-Chief (DCINC) Lieutenant General Calvin Waller. The DCINC's role in the JTCB process was a measure allowing Waller, in effect, to serve in the role of the JFLCC because it pertained to opening a line of communication between the corps commanders and the JFACC. Furthermore, the services responded to the JTCB in accordance with their theories of victory. Naturally, for the Army, the JTCB was viewed as a method to ensure JFACC compliance with the joint force commander's objectives.<sup>57</sup>

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<sup>55</sup> Williamson Murray et al., *Gulf War Air Power Survey, Volume II: Operations and Effects and Effectiveness (Part 1)*, ed. Eliot A. Cohen and Thomas A. Keaney, Gulf War Air Power Survey 2 (United States Dept. of Defense, 1993), 261–264, 341–344; Barry D. Watts et al., *Gulf War Air Power Survey, Volume II: Operations and Effects and Effectiveness (Part 2)*, ed. Eliot A. Cohen and Thomas A. Keaney, Gulf War Air Power Survey 2 (United States Dept. of Defense, 1993), 202–226; Miller, “Joint Targeting Control, Compromise, or Coordination Board,” 2–3; Atkinson, *Crusade*, 338–345; Lewis, “Desert Storm -- JFACC Problems Associated With Battlefield Preparation,” 13–27.

<sup>56</sup> Putney, *Airpower Advantage*, 318, elaborates on the genesis of the JTCB in CENTCOM: “Before the war, Schwarzkopf had not convened a formal Joint Targets Coordination Board of senior component representatives at CENTCOM headquarters. Over the years, by an informal, evolutionary process during training exercises, the joint targeting board had come to consist of junior officers, with a CENTAF representative acting as chair, and it met at the JFACC level. The board's sitting at CENTAF, instead of at CENTCOM, was a peacetime development untested by the stress of war. During Desert Storm in February, the CINCCENT's new deputy, General Waller, would chair a board that produced a prioritized target list.”

<sup>57</sup> Lewis, “Desert Storm -- JFACC Problems Associated With Battlefield Preparation,” 6–7; Johnson, “Joint Targeting and the Joint Target Coordination Board,” 26–27.



The Army found the JTCB an appropriate venue in which to compel the Air Force to seek approval for all its offensive actions. As far as the Army saw the situation, it could only gain through JTCB coordination. The Army was unhappy with its perceptions of the Air Force's prosecution of targets in the Kuwaiti Theater of Operations and had very little to risk with any prospective outcome of the JTCB. After all, its imperatives for organic close combat attack, fire support, and air mobility were protected by statute and directive. Thus, to the Army, things could only get better. The Air Force, however, was concerned with such an outcome and sought to avoid the JTCB while it could because, as one analyst put it, "targeting is not [merely] a staff function [to the Air Force]—it is a command function."<sup>58</sup> Thus, the Air Force was more apt to resist the JTCB strictures because they placed their logic of appropriateness in the hands of someone who may not have been sufficiently compelled by the imperatives of 'airmindedness.' Furthermore, beyond the airmen's normative imperatives, the JTCB also placed the Air Force's cultural preferences for autonomy at risk. Unlike the Army, who has regulatory protection for its organic functions, the Air Force has no equivalent, and thus, no recourse to address its regulatory and normative imperatives via the JTCB process when its resources are directed away from its imperatives. This became obvious to airmen participating in the JTCB during Operation Desert Storm.<sup>59</sup>

Ultimately, the JTCB did not solve most of the command and feedback problems generated by Schwarzkopf passing guidance directly to the JFACC without informing his subordinate corps commanders, something he appropriately should have done in his role as the JFLCC. But the JTCB did give the subordinate corps commanders improved

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<sup>58</sup> Miller, "Joint Targeting Control, Compromise, or Coordination Board," 6.

<sup>59</sup> Miller, "Joint Targeting Control, Compromise, or Coordination Board," 6, 8–9; Atkinson, *Crusade*, 338–340; Johnson, "Joint Targeting and the Joint Target Coordination Board," 25–31.

situational awareness about decisions regarding the JFACC's preparation of the battlefield, as well as a formal method for communicating concerns and complaints with equal representation within the CENTCOM command structure. For example, after the JTCB was instituted, Waller had some capability to shape the weight of effort and prioritization of targets nominated by the corps commanders, which was absent before the JTCB. But more importantly, this structure also gave the corps commanders the opportunity to see, despite their perceptions of Air Force targeting during the air campaign, the reality was that the CINCCENT objective "Render the Iraqi army in the KTO ineffective" garnered over 73% of *all* the sorties flown in Operation Desert Storm.<sup>60</sup> The Army's perception of the Air Force theory of victory was inaccurate, and the JTCB gave them the opportunity to recognize this fact.

In sum, after the establishment of the JTCB by CENTCOM, the corps commanders were better able to understand what CINCCENT had been directing, and provide their rationale for target nominations in a manner in which Schwarzkopf could not adequately manage in his two roles. Also, despite the drawbacks for the JFACC, the JTCB improved the transparency of the airpower apportionment and allocation decisions in Operation Desert Storm. In effect, the JTCB gave both the Army and the Air Force a formal construct in which their divergent theories of victory could equally influence the combatant commander's judgment. This was merely one, albeit significant, way theories of victory contributed to the negotiated environment during the conduct of Operation Desert Storm. The JTCB, in short, provided a constructive venue in which the Army's and Air Force's theories of victory could be blended.

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<sup>60</sup> Lewis, "Desert Storm -- JFACC Problems Associated With Battlefield Preparation," 6–7; James A. Winnefeld, Preston Niblack, and Dana J. Johnson, *A League of Airmen: U.S. Air Power in the Gulf War*, Project AIR FORCE MR-343-AF (Santa Monica, CA: RAND Corporation, 1994), 81–85, Table 6.4, 157; *Conduct of the Persian Gulf War, Vol 1*, 1:345.

## **Synthesis of the Air Force and Army Theories of Victory**

Military institutions are both products of and protagonists in their environments. The Air Force's and Army's theories of victory provided these institutions with not only a means of coping with the uncertainty they were experiencing in their transition to war, but also with a method for implementing their particular visions for success. The Air Force and Army not only responded to the changes of the environment through adjustments to their logics of action, they also had to constructively blend their approaches with one another. As described in Chapter 2, each military institution exhibits diffusion, and thus its theory of victory is also subject to diffusion. This is a feature of service theories of victory that allows them to be molded to specific contexts. The Air Force and Army theories of victory required a modicum of alteration, modification, and combination as a part of the practical blending of joint warfighting modes during Operation Desert Storm.

The practical manner of joint warfighting creates an imperative for the functional blending of the service theories of victory with one another. Within a negotiated environment, each military institution seeks to influence this functional blending to create the conditions for victory favorable to their theory of victory. This act of negotiation typically occurs with some friction as the services seek to maximize inserting their theories of victory into the vision articulated by the joint force commander directing the prosecution of the war. In the act of adapting and blending their theories of victory in Operation Desert Storm, the Air Force and the Army could negotiate the uncertain environment through acquiescence, compromise, avoidance, defiance, and manipulation, as described in Chapter 2.

In this brief analysis of Operation Desert Storm, there were some very clear occurrences of avoidance, particularly in those instances

where the Air Force attempted to use buffering to shape the force allocation toward the strategic air campaign. The Army used buffering as well in its conservative bomb damage assessments of Iraqi ground force attrition within the Kuwaiti Theater of Operations. In both cases, Schwarzkopf acted under his regulatory authority to impose his vision upon his service components and constrain both their acts of buffering.

Additionally, despite the perception that the Air Force was seeking to manipulate the allocation of forces toward its strategic air campaign, the JTCB created sufficient transparency of JFACC allocation for the JFLCC to illuminate how the Air Force had actually acquiesced to the Army's normative imperatives as expressed in the AirLand Battle concept. However, the processes resultant from this acquiescence did not directly match the Army's experiential models, especially regarding the control of battlefield air interdiction. Therefore, because the JFACC's "hunter-killer" killbox interdiction methodology did not conform with what the Army saw as appropriate counterland attack in battlefield air interdiction, the corps commanders responded emotionally and negatively to what they perceived was the frittering of resources on the part of the Air Force.<sup>61</sup>

Finally, both the planning and the conduct of Operation Desert Storm generally resulted in compromise between the Air Force and the Army. In the planning phase of the war, both the Air Force and the Army theories of victory, with the former's imperative for attrition and the latter's imperative for annihilation, found sufficient favor in the CINCCENT's overall phasing construct. W. Richard Scott suggests compromise occurs where balancing and placating of institutional demands are adequately satisfied, and the blending of the strategies of

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<sup>61</sup> Terrance J. McCaffrey III, "What Happened to BAI? Army and Air Force Battlefield Doctrine Development from Pre-Desert Storm to 2001" (Thesis, Air University, 2002), 37; Scales, *Certain Victory*, 174–175; Atkinson, *Crusade*, 219–223.

attrition and annihilation in the operational plans for Operation Desert Storm are a result of this mechanism.<sup>62</sup> Because General Schwarzkopf found advantage in both the normative imperatives of attrition and annihilation in the formulation of the Desert Storm operations plan, with neither strategy being inferior to the other but complementary toward the objective of ejecting the Iraqi forces from Kuwait, he elected to use them both.<sup>63</sup> Outside of the humiliating relief of General Michael Dugan, the Chief of Staff of the Air Force, for preempting General Schwarzkopf's planning authority as the CINCCENT, neither service sought seriously to challenge or further manipulate this compromise.<sup>64</sup>

Furthermore, Scott suggests compromise also occurs when institutional frameworks are found to be conflicting without resolution from higher authority.<sup>65</sup> During the conduct of Desert Storm, the services developed compromises between their divergent theories of victory through the JTCB process in the absence of the CINCENT's definitive resolution. In the execution of Operation Desert Storm, the JTCB certainly improved the conditions for compromise between the Air Force and the Army theories of victory. The Air Force, for its part, wanted to destroy as many Iraqi tanks, artillery, and personnel carriers as possible before the ground offensive began. The Army, for its part, wanted to set the conditions as close as possible to the ideal to overwhelm and annihilate their adversary in southern Iraq and Kuwait. There was ample room to compromise after the JTCB created sufficient transparency into the processes of apportionment and allocation of limited resources in the fleeting time remaining before crossing the line of departure.

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<sup>62</sup> Scott, *Institutions and Organizations*, 211–212.

<sup>63</sup> Swain, *Lucky War*, 307–308.

<sup>64</sup> U. S. News & World Report, *Triumph Without Victory*, 152–153, Gordon and Trainor, *The Generals' War*, 86–90, 100–101; Putney, *Airpower Advantage*, 201–204; Atkinson, *Crusade*, 272–273, 293; Reynolds, *Heart of the Storm*, 106; Bob Woodward, *The Commanders*, First Edition edition (New York: Simon & Schuster, 1991), 290–296.

<sup>65</sup> Scott, *Institutions and Organizations*, 211–212.

To recapitulate, it is important to recall there is no single military theory of victory.<sup>66</sup> Thus, it is equally important to recall joint warfare requires the blending of broadly distinctive and divergent sets of imperatives and preferences between the services. While the Air Force and Army theories of victory are distinctive and in many ways divergent forms of collective rationality, they must still be sufficiently adaptable to varied and specific contexts in which they will be applied. Given that success in war contributes to the prestige of military institution from which it is attributed, there is good reason to be viewed as a significant contributor to the successful outcome of a war rather than the impediment to success. Furthermore, the fact that success also accentuates institutional relevance lends support to advocacy for capabilities essential to the institution's critical tasks and aids recruitment and retention of like-minded personnel, there is even greater reason to compromise with other services in the blending of theories of victory.

In this brief Desert Storm example, the analysis of the blending of Air Force and Army theories of victory indicates compromise and acquiescence were highly valued and rewarded, while clear manipulation was sternly punished. There was no strong indication that outright defiance took place by either service, but there were several clues the services made attempts at avoidance to retain their distinctive imperatives and preferences in both the planning and conduct of Desert Storm. However, the deeper examination of those instances of avoidance illuminated above points to a decision calculus leaning more heavily upon the logic of appropriateness than the logic of tradition. In the case of Desert Storm, when the cacophony of the services involved prevented what Harold Winton described as a "finely tuned symphony" of joint

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<sup>66</sup> Donnithorne, *Culture Wars*, 25.



blending, the services sought to be “the featured instrument” because of normative imperatives rather than cultural preferences.<sup>67</sup>

When a service seeks to avoid joint blending, as in the case of Desert Storm, rather than acquiescing or compromising, it is indeed making a significant statement. The conventional wisdom and literature of organizational theory applied to the military services would suggest this is a manifestation of excessive self-contemplation, or an expression of culture gone awry; but alternatively, one might rather consider the *why* of its theory of victory that is compelling such a need. Under a different point of view, this need that precipitated avoidance might be found to be appropriate.



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<sup>67</sup> Winton, “Partnership and Tension,” 119; Winton, “An Ambivalent Partnership: US Army and Air Force Perspectives on Air-Ground Operations, 1973-90,” 399, 432–433.

## Chapter 5

### Conclusions

*Not only is it inevitable that soldiers, sailors, and airmen should contend for strategic preference in strategic planning and action, it is desirable that they should do so. Rarely is there a wholly self-evidently superior strategy for victory. More often than not even the definition of what should constitute an acceptable victory or advantage is subject to legitimate dispute. Since the stakes (ends) in war are high and the strategy (ways) contestable, it is unsurprising that the detail of human and technical assets (means) to be acquired and employed will be ever challengeable. It is through professional challenge and answer, mediated by a political process, that some approximation to functional strategic truth emerges.*

- Colin Gray

The trend in warfare consistently moves toward greater coordination, synchronization, and integration among forces that specialize in different modes of warfighting. To conduct war effectively, the blending of the functional responsibilities from each military service must be successfully incorporated into a single whole. Thus, the performance of a joint force is a product of its contributions from the military services from whence it derives its support. But given these military services, as institutions, specialize in differing modes of warfighting, joint warfare requires services to understand not only *how* the other military services think differently, but also *why*.

The purpose of this thesis has been to aid practitioners with a set of frameworks to consider critically both *how* and *why* military institutions think differently from one another as a means

for reducing interservice friction and improving the effectiveness of joint warfighting. Toward that end, this thesis recognized military institutions have ideals, ideas, and behaviors crafted from their distinctive regulatory and normative imperatives and their distinctive cultural preferences. These distinctive imperatives and preferences coalesce into an organizational construct that rationalizes its ideals, ideas, and behavior through a concept known as a theory of victory. Ultimately, this thesis used Operation Desert Storm as a historical example to illuminate the relationship between the distinctive Air Force and Army theories of victory and military effectiveness in the planning and conduct of joint operations. These conclusions will proceed by briefly recapitulating the important points from each chapter, and then provide a succinct answer to the research question.

Chapter 2 adapted W. Richard Scott's framework for organization theory and applied it to the military services. The scaffolding of Scott's framework separates and categorizes the connections between three important variables that shape *how* institutions make decisions, coordinate, and adapt in the face of uncertainty. These variables are regulatory requirements, normative beliefs, and cultural-cognitive self-perception. Each of these variables is referred to as a pillar of the military institution and divided into disparate dimensions that aid in describing and explaining each pillar in an exhaustive yet comparable manner. These dimensions explain how each pillar of the institution promulgates its basis of compliance, basis of order, mechanisms for enforcement, standard indicators, normal emotional responses, basis of legitimacy, and most importantly, their logic of action. Of the dimensions, the most important for this thesis are the indicators, mechanisms, and logic for action. Thus, the regulatory,

normative, and cultural-cognitive pillars are respectively rationalized via the logic of consequences, appropriateness, and tradition. The logic of consequences and the logic of appropriateness provide military institutions *imperatives* for action, and those are distinct from the logic of tradition, which provides the institution its *preferences* for action. The disparate pillars of institutional logic interact and influence one another, and ultimately form into the collective rationality of the military institution, which is its theory of victory.

Synthesizing Scott's framework with another construct from William Martel, Chapter 2 continued by imposing three requirements upon a military institution's collective rationality to qualify it as a theory of victory. First, a theory of victory must identify the critical attributes and tasks of institutions in warfare. Next, it must describe the extent to which these attributes and tasks contribute to victory. Finally, a theory of victory must assess the relative influence or priority these attributes and tasks have on creating conditions for victory. By combining both models and applying them to the study of military institutions in a case-by-case examination, one can discern the *how* and *what* behind the institution's ideals, ideas, and behavior. This allows a researcher to distinguish the causal linkages among the rules, norms, and culture of an institution and form judgments about a military service's theory of victory.

Chapter 3 applied Scott's framework to the U.S. Air Force in order to tease out its distinctive yet complementary logics of consequences, appropriateness, and tradition, as they existed just before Operation Desert Storm in 1990. From these disparate rationalities for action, judgments were formed as to the imperatives and preferences that dominated the Air Force's

collective rationality as expressed by its ideals, ideas, and behavior. Then the thesis compared this collective rationality with Martel's framework to qualify it as a theory of victory. From this inductive formulation, one can also answer the question of *why* the Air Force does what it does to address both its imperatives and preferences.

This thesis argued that the Air Force theory of victory immediately prior to Operation Desert Storm prioritized the importance of air superiority and strategic attack over other missions, but it also had a strategic imperative in providing support to the Army despite its subordinate normative priority. Furthermore, it argued that a normative imperative exists for the Air Force to wage attritional warfare on its adversaries. Because "airmindedness" is an imperative to airmen, they deem it most appropriate for airmen to select the strategic and operational centers of gravity necessary to destroy and deny the adversary's capabilities and strategy respectively. This was seen as a means to a desired end of breaking the enemy's will to fight. To the airman, "airminded" attrition strategies represent the most economical use of military force to achieve national objectives. Finally, the Air Force exhibited a clear preference for an air weapon that required deep-rooted technical capability and expertise to exert an asymmetric advantage over any challenger not only in its own air domain, but also against forces resident on the land, and thus improves the image and relative importance of the airman-pilot over other potential protagonists in victory.

Chapter 4 applied Scott's framework to the U.S. Army to tease out its distinctive, yet complementary, logics of consequences, appropriateness, and tradition, as they existed just before Operation Desert Storm in 1990. From these disparate

rationalities for action, judgments were formed as to the imperatives and preferences that dominated the Army collective rationality as expressed by its ideals, ideas, and behavior. Then it compared this collective rationality with Martel's framework to qualify it as a theory of victory. From this inductive formulation of the theory of victory, one can also answer the question of *why* the Army does what it does to address both its imperatives and preferences.

This thesis argued that the Army theory of victory immediately prior to Operation Desert Storm prioritized strategies of annihilation over attrition. Here, centers of gravity were viewed as something to be controlled or defeated, rather than necessarily destroyed, in order to break the will of the enemy. The imperative for annihilation in the U.S. Army involved constantly seeking positional advantage via maneuver, offensive initiative, and decisiveness. To the soldier, annihilation strategies represent the most economical and enduring use of military force to achieve national objectives. Not to seek the defeat the adversary via any other means than annihilation strategies is loathsome to the Army's logic of appropriateness. The alternative of attrition is anathema, shameful, or even ruinous to national security from the soldier's perspective and produces a visceral, or even an angry, affective response. As a force, the Army was emerging from a period of cultural and intellectual rejuvenation in which the efficiency-minded preferences of the Managers dominated. Despite this dominance, the stoic principles of the Guardians were also quite influential. But neither the Managers nor the Guardians of the Army could effectively lead without ingratiatory appeals to the martial spirit preferred by its Hero class. Finally, the Army theory of victory, which was deeply rooted in AirLand Battle doctrine, had



an intense conviction not only of what was appropriate for land warfare, but also for air warfare.

Chapter 5 applied Air Force and Army theories of victory, respectively, to the planning and conduct of Operation Desert Storm. This chapter demonstrated that Air Force and Army theories of victory were divergent in both the planning and the conduct of the war. It investigated several episodes of significance, which offered evidence of the interrelated regulatory requirements, normative imperatives, and cultural-cognitive self-perceptions of the services in action. This analysis revealed the expectations, reflexes, styles, and attitudes that demonstrate *how* the Army and Air Force applied their distinctive theories of victory to an uncertain environment. Additionally, this chapter revealed the challenges to blending these disparate theories of victory into a coherent operation for joint action. Ultimately, it was in this chapter where the thesis attempted to answer its primary research question: how did the interaction between institutional theories of victory of the U.S. Air Force and U.S. Army manifest itself in military-strategic choice before and during Operation Desert Storm?

The U.S. Air Force and U.S. Army theories of victory manifested themselves in military-strategic choices before and during Operation Desert Storm, but most significantly through compromise. In the planning of Desert Storm, the normative imperatives for attrition and annihilation both found utility in General Schwarzkopf's conceptual blending of the service theories of victory. Rather than rejecting one as inferior in favor of the other, Schwarzkopf recognized the complementary potential of attrition and annihilation to force the Iraqi withdrawal from Kuwait, degrade Iraq's offensive capability, secure Kuwait's oil

facilities, and render Saddam Hussein ineffective as a leader. These theories of victory influenced the military-strategic choices of decision makers by presenting divergent approaches to victory the combatant commander was ultimately able to synthesize into a coherent theater campaign plan that exploited the strengths and minimized the weaknesses of both.

During the conduct of the war, while compromise still overshadowed the other means of diffusion to blend the disparate theories of victory, acquiescence became more important to the negotiated environment as a result of the JTCB process. While the Air Force component compromised its theory of victory to the strictures of the JTCB, it provided the advantage of transparency to joint partners. This transparent view into Air Force apportionment and allocation of resources in the Kuwaiti Theater of Operations targeting proved the Air Force theory of victory had acquiesced to the normative obligations of the AirLand Battle facet of the Army theory of victory, although in a manner in which the corps commanders were unfamiliar. Finally, while this thesis found no evidence of either the U.S. Air Force or the U.S. Army defying the functional blending of their theories of victory into joint warfare, there were several instances of the components utilizing a strategy of avoidance to buffer themselves in the negotiated environment. But in each instance of avoidance examined, the services were attempting to buffer their normative imperatives from what they believed was a movement away from the most appropriate conduct of warfare according to their theory of victory. And the joint force commander overrode their efforts.

To reiterate, the military institutions that fight our nation's wars are complex entities, which have many coordinative and adaptive requirements for action in uncertain environments. The

institutional logic of each military service can be categorized, connected, and explained in terms of how they result in imperatives and preferences. These coalesce into theories of victory that can be studied in terms of *how* rules and norms constrain institutional imperatives and also in *what* culture does to shape institutional preferences, toward the ideals, ideas, and behavior that explain cumulative institutional logic. Beyond simply understanding the distinctive *how* and *what* of each service's collective rationality, the institutional framework for military services and their subsequent theories of victory presented here provides insights into *why* a soldier thinks like a soldier, and an airman like an airman. Furthermore, the process demonstrated in this thesis provides the analyst a method for examining how the services shape the negotiated environment of strategic-military decision making that, in turn, determines military effectiveness in the planning and conduct of joint operations.

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